

AC. 4491

COUNTY COUNCIL OF SALOP.

ANNUAL REPORT

OF THE

County Medical Officer of Health.

1932.

WILLIAM TAYLOR, M.D., D.P.H.

SHREWSBURY,
August, 1933.





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*To the Chairman and Members of the Public Health and Housing Committee
of the Salop County Council.*

MR. CHAIRMAN, LADIES AND GENTLEMEN,

I have the honour to present the Annual Report for 1932, which has been drawn up in accordance with the Memorandum issued by the Ministry of Health.

The provisions of the Local Government Act, 1929, have placed duties on the County Council in connection with which important decisions will have to be made in the near future. Probably the most urgent matter now demanding the attention of the Committee is the scheme for the provision of isolation hospital accommodation for cases of infectious disease; after which, on the completion of the review of the County Districts, it will be necessary to prepare a scheme to secure for each District the services of a whole-time Medical Officer of Health.

Although no important schemes have been initiated during the year in connection with the health services, the various branches of the work have gradually been extending, the cumulative effect of which has been to tax to the utmost the capacity of the office staff.

I am indebted to Mr. W. H. Jones, Chief Clerk, for a great deal of valuable assistance in the preparation of this Report.

I am,

Your obedient Servant,

WILLIAM TAYLOR.

COUNTY HEALTH OFFICE,
COLLEGE HILL,
SHREWSBURY,
August, 1933.

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STAFF.**County Medical Officer of Health and School Medical Officer.**

WILLIAM TAYLOR M.D., D.P.H.

Deputy County Medical Officer of Health.

B. A. ASTLEY-WESTON .. M.B., CH.B., D.P.H.

Tuberculosis Medical Officers.

A. C. WATKIN M.R.C.S., L.R.C.P., D.P.H.

T. R. ELLIOTT L.R.C.P.I., L.R.C.S.I.

Assistant School and Child Welfare Medical Officers.

K. PRIESTLEY L.S.A.

MABEL BLAKE M.B., CH.B.

§L. WILSON EVANS M.C., M.B., B.S., D.P.H.

||W. H. HARRIS M.B., CH.B., D.P.H.

SYDNEY S. PROCTOR M.D., D.P.H.

Dental Surgeons.

STEPHAN KEENAN L.D.S.

FRANK H. BIRCH H.D.D., L.D.S.

GERALD R. CATCHPOLE L.D.S.

Organiser of Physical Training.

MRS. K. W. DAVEY Diploma of the Chelsea College of Physical Education.

Inspector of Midwives and County Health Lecturer.

MRS. E. M. HART Certificate of the C.M.B. and Sanitary Inspector's Certificate.

Assistant Inspector of Midwives.

MISS G. C. COLLINS Health Visitors Certificate and Certificate of C.M.B.

County Analyst.

HAROLD LOWE M.Sc., F.I.C.

Health Visitors and School Nurses.

*†MISS C. M. BINDLOSS.

MISS E. M. GRIFFITHS.

*†MISS A. K. O'CONNELL.

*†MISS J. A. BRODERSEN.

*†MISS G. GILSENAN.

†MISS G. L. THOMAS.

*MISS B. CONNELLY.

†MRS. M. M. LOWRANCE.

*MISS E. DAVIES.

*†MISS M. DORRICOTT.

*MISS E. Q. MASON.

*MISS M. PARRY.

*†MISS E. L. GRIFFITHS.

*MISS G. M. MORGAN.

Obstetrical Consultant and Consultant under the Puerperal Fever and Puerperal Pyrexia Regulations, 1926.

R. L. E. DOWNER M.D., M.C.O.G.

Venereal Diseases Medical Officer (part-time).

COL. J. GRECH D.S.O., M.R.C.S., L.R.C.P.

Sister-in-Charge V.D. Clinic.

MRS. D. A. MURRAY S.R.N., F.R.N.

Prees Heath Sanatorium.

MISS M. A. TREBLE Matron.

County Home for Ailing Babies.

MISS M. L. CROWE Matron.

Berrington Hospital.MISS J. P. COCHRAN S.R.N. and C.M.B. Certificate, *Matron.*SAMUEL BURKE M.R.C.S., L.R.C.P., *Resident Medical Officer.***Clerical Staff.**

W. H. JONES Chief Clerk, and Ten Assistants.

§ *Also Medical Officer of Health for the Urban and Rural Districts of Oswestry.* || *Also Medical Officer of Health for the Urban and Rural Districts of Ellesmere.* * *Holds C.M.B. Certificate.*

† *Holds Health Visitors Certificate.* ‡ *Holds Certificate of London Obstetrical Society.*

District Medical Officers of Health.

Name.	Address.	District or Districts.					
		Urban.			Rural.		
		Name.	Acreage.	Population (1931 Census)	Name.	Acreage.	Population (1931 Census)
J. DALLEWY, M.R.C.S., L.R.C.P.	Wem.	Wem.	452	2,157	Wem.	51,999	8,436
L. E. DICKSON, M.D., M.R.C.S., L.R.C.P.	Bridgnorth.	Bridgnorth.	2,822	5,151	Bridgnorth.	70,717	8,293
L. WILSON EVANS, M.C., M.B., B.S., D.P.H.	Oswestry.	Oswestry.	1,887	9,754	Oswestry.	60,379	16,603
M. GEPP, L.R.C.P., L.R.C.S., D.P.H.	Shrewsbury	Bishop's Castle.	1,867	1,352	Atcham.	125,194	22,651
		Church Stretton.	978	1,704	Chirbury.	27,045	3,059
		Wenlock.	22,657	14,149	Church Stretton.	45,106	4,524
		Whitchurch	4,783	6,017	Clun.	82,206	5,945
J. A. K. GRIFFITHS, M.B., M.R.C.S., L.R.C.P.	Knighton.	—	—	—	Whitchurch	11,702	2,091
W. H. HARRIS, M.B., CH.B., D.P.H.	Shrewsbury	Ellesmere.	1,206	1,872	Teme.	23,090	1,563
A. MACQUEEN, M.D.	Market Drayton.	Market Drayton.	1,216	4,749	Ellesmere.	51,115	7,324
A. D. SYMONS, M.D., D.P.H.	Shrewsbury.	Shrewsbury	3,525	32,372	Drayton.	50,168	7,381
A. E. WHITE, M.B., C.M., L.R.C.P., L.R.C.S., D.P.H.	Wellington	Dawley. Ludlow.	2,790 420	7,359 5,642	—	—	—
		Newport. Oakengates. Wellington.	768 2,329 700	3,437 11,190 8,186	Burford. Cleobury Mortimer.	7,798	1,159
					Ludlow.	44,338	6,925
					Newport.	66,348	8,677
					Shifnal.	22,808	5,498
					Wellington.	39,915	7,707
						33,472	11,229

Poor Law Medical Out-Relief.

Name of Area.	County Districts. comprised in Area.	Acreage.	Population	No. of Relief Districts.	No. of Relieving Officers.	District Medical Officers.
Bridgnorth ..	{ Bridgnorth U. & R. Cleobury Mortimer R.	{ 117,877	20,368	2	2	Dr. J. Anderson, Dr. L. E. Dickson, Dr. G. R. Kennedy, Dr. R. G. Adden- brooke, Dr. W. A. N. Robinson.
Clun.. ..	{ Bishop's Castle U. .. Chirbury R. .. Clun R. .. Teme R. ..	{ 134,208	11,923	2	2	Dr. G. Wheldale Stanley, Dr. R. E. G. Phillips, Dr. L. Gameson, Dr. J. Adams, Dr. T. H. Gandy, Dr. G. H. H. Booth, Dr. J. A. K. Griffiths, Dr. W. B. Darroll, Dr. H. R. Cross.
Drayton ..	{ Drayton U. & R. .. Wem U. & R. .. Whitchurch U. & R.	{ 120,320	30,826	2	2	Dr. J. R. Mitchell, Dr. J. Dallewy, Dr. C. W. Eames, Dr. V. E. Somerset, Dr. I. B. Richardson, Dr. A. H. Clough, Dr. W. King Hay, Dr. Frances Lilian Lewis, Dr. A. Lees Low, Dr. W. Hall.
Ludlow ..	{ Burford R. .. Church Stretton U. & R. Ludlow U. & R.	{ 120,650	21,707	3	3	Dr. H. Gooch, Dr. J. McClintock, Dr. F. W. Hudson-Bigley, Dr. C. H. Flory, Dr. J. Anderson, Dr. C. Fenwick, Dr. H. O. Watson, Dr. A. Sanders Green.
Oswestry ..	{ Ellesmere U. & R. .. Oswestry U. & R. ..	{ 114,574	35,552	3	3	Dr. W. B. A. Lewis, Dr. J. H. Crofton, Dr. H. S. O'Connor, Dr. D. J. Micah, Dr. C. E. Salt, Dr. J. H. Matthews, Dr. C. D. Rogers, Dr. A. C. Heard, Dr. E. H. Udall for Oswestry Institution.
Shrewsbury	{ Atcham R. .. Shrewsbury U.	{ 128,732	55,025	3	3	Dr. W. E. Gemmell, Dr. J. H. Marshall, Dr. J. G. Glynn Pigott, O.B.E., Dr. G. M. Westwood, Dr. C. W. Cassell, Dr. T. J. Gittens, Dr. C. U. Whitney, Mr. H. H. B. MacLeod for Berrington Hospital.
Wellington	{ Newport U. & R. .. Oakengates U. .. Wellington U. & R.	{ 60,077	39,539	2	2	Dr. H. W. J. Hawthorn, Dr. D. L. Mac- Kenna, Dr. G. E. Elkington, M.C., Dr. J. R. Pooler.
Wenlock ..	{ Dawley U. .. Shifnal R. .. Wenlock U. ..	{ 65,362	29,222	3	3	Dr. C. U. Whitney, Dr. H. C. Woodhouse, Dr. R. S. Mitchell, Dr. J. G. Boon, Dr. F. W. Hudson-Bigley, Dr. S. B. Legge, Dr. D. J. M. Legge.
		861,800	244,162	20	20	

Hospital Accommodation at Public Assistance Institutions.

Name.	Sick Wards.		Medical Officer.	Number of			
	No. of beds.	Average No. of beds. used.		Trained Nurses.	Probationer Nurses.	Assistant Nurses.	Male Attendants.
Berrington	174	135	Resident* ..	7	26	..	..
Bishop's Castle ..	35	22	Visiting ..	1	..	3	1
Bridgnorth	41	41	Visiting ..	..	2	3	..
Ironbridge	83	62	Visiting ..	1	..	4	..
Ludlow	52	35	Visiting ..	1	..	4	..
Market Drayton ..	43	24	Visiting ..	..	..	2	..
Newport	34	26	Visiting ..	1	..	2	..
Oswestry	94	77	Visiting ..	4	..	8	..
Shifnal	27	17	Visiting ..	1	..	2	..
Wellington	114	99	Visiting ..	4	4	4	1
Whitchurch	29	17	Visiting ..	2	..	2	..
	726	555		22	32	34	2

* Also Consultant.

Voluntary Hospital Accommodation.

Name and Situation.	No. of beds, including cots.	Average number of beds occupied.	Facilities provided.
Bridgnorth and South Shropshire Infirmary, Bridgnorth	40	26	a, b, c, d, f, k, m, n, p, q, r.
St. Catherine's Cottage Hospital, Clun	7	3	a, d.
Cottage Hospital, Ellesmere	11	6	a, b, d, p.
Cottage Hospital, Ludlow	9	*	a, b, m, q.
Cottage Hospital, Market Drayton	13	*	a, b, d, m, p.
Lady Boughey Cottage Hospital, Newport ..	15	*	a, b, d, e, m, n, p, q.
Cottage Hospital, Oswestry	21	15	a, b, d, m, p.
Cottage Hospital, Shifnal	12	6	a, b, c, d, f, n, p, q.
District Cottage Hospital, Wellington ..	18	8	a, b, d, m, n.
Cottage Hospital, Whitchurch	13	7	a, b, d, m, q.
Shropshire Orthopaedic Hospital and Agnes Hunt Surgical Home, Oswestry	320	*	b, d, e, f, j, k, m, n, p, q.
Royal Salop Infirmary, Shrewsbury	156	137	a, b, c, d, f, j, k, m, n, o.
Eye, Ear and Throat Hospital, Shrewsbury ..	50	39	b, d, f, g, h, j, k, l.
Lady Forester Hospitals—			
Broseley	29	14	a, b, c, p, r.
Much Wenlock	29	13	a, b, c, k, l, n, p, r.
King Edward VII. Memorial Sanatorium, Shirlett	62	62	k, m.

Hospitals used outside Salop include the Hereford General Hospital, Wolverhampton Royal Hospital, Stafford Infirmary, Wolverhampton Eye Hospital, and the Kidderminster Hospital.

KEY.—a=General Medical and Surgical Treatment; b=Operating Theatre; c=Maternity Beds; d=Children's Beds; e=Orthopaedic Department; f=Dental Department; g=Nose, Throat and Ear Department; h=Ophthalmic Department; i=Dermatological Department; j=Laboratory; k=Light Therapy; l=Radium Treatment; m=X-Ray Facilities; n=Massage Treatment; o=Gynaecological Department; p=Private Ward; q=Open-Air Verandah; r=Shelters; *=No Information.

Hospital Beds available in the County of Salop classified according to Type of Case and as far as possible to Sex.

Type of Case.		Provided at	Total.	No. of beds.		
				Male.	Female.	M. or F.
General Medical	..	{ Bridgnorth and South Shropshire Infirmary ..	14	..	..	14
		{ St. Catherine's Cottage Hospital, Clun ..	6	3	3	..
		{ Royal Salop Infirmary, Shrewsbury ..	56	26	26	4
			76	29	29	18
General Surgical	..	.. Royal Salop Infirmary	68	40	26	2
General Medical and Surgical		{ Berrington Hospital (P.A.I.)	95	53	42	..
		{ Bridgnorth and South Shropshire Infirmary ..	19	..	..	19
		{ Ellesmere Cottage Hospital	10	..	..	10
		{ Lady Forester Cottage Hospital, Broseley ..	23	..	..	23
		{ Lady Forester Memorial Hospital, Much Wenlock	25	..	..	25
		{ Ludlow Cottage Hospital	9	..	..	9
		{ Market Drayton Cottage Hospital ..	12	..	..	12
		{ Newport, Lady Boughey Cottage Hospital ..	14	..	..	14
		{ Oswestry Cottage Hospital	19	..	..	19
		{ Shifnal Cottage Hospital	8	..	..	8
		{ Wellington Cottage Hospital	14	..	..	14
		{ Whitchurch Cottage Hospital	13	..	..	13
			261	53	42	166
Children.	..	{ Berrington Hospital (P.A.I.)	18	..	..	18
		{ Bridgnorth and South Shropshire Infirmary ..	4	..	..	4
		{ County Home for Ailing Babies, Wellington ..	16	..	..	16
		{ Ellesmere Cottage Hospital	1	..	..	1
		{ Market Drayton Cottage Hospital ..	1	..	..	1
		{ Newport (Lady Boughey) Cottage Hospital ..	1	..	..	1
		{ Oswestry Cottage Hospital	2	..	..	2
		{ Public Assistance Institutions (excluding Berrington)	53	..	..	53
		{ Royal Salop Infirmary	22	..	..	22
		{ Shifnal Cottage Hospital	1	..	..	1
		{ Wellington Cottage Hospital	4	..	..	4
			123	..	..	123
Maternity.	..	{ Berrington Hospital (P.A.I.)	23	..	23	..
		{ Bridgnorth and South Shropshire Infirmary ..	3	..	3	..
		{ Lady Forester Cottage Hospital	6	..	6	..
		{ Lady Forester Memorial Hospital ..	4	..	4	..
		{ Public Assistance Institution (excluding Berrington)	17	..	17	..
		{ Royal Salop Infirmary	10	..	10	..
		{ Shifnal Cottage Hospital	3	..	3	..
			66	..	66	..
Venereal Diseases	..	.. V.D. Clinic, Shrewsbury	4	2	2	..
Tuberculosis	..	{ Shirlett Sanatorium	62	..	..	62
		{ Prees Heath Sanatorium	11	..	..	11
		{ Public Assistance Institution (shelters) ..	20	12	8	..
			93	12	8	73

Type of Case.	Provided at				Total.	No. of beds.		
						Male.	Female.	M. or F.
Chronic Sick	Public Assistance Institutions	..	..	..	475	246	229	..
Mental	Salop Mental Hospital	..	..	..	896	436	460	..
Mental Deficiency ..	{ Church Stretton Public Assistance Institution				5	..	5	..
	{ Madeley Public Assistance Institution				25	10	15	..
					30	10	20	..
Orthopaedic	Shropshire Orthopaedic Hospital	..	..	..	320	..	..	320
Eye, Ear, Nose and Throat	Eye, Ear and Throat Hospital	..	..	..	50	..	..	50
Puerperal Fever and Puerperal Pyrexia	Berrington Hospital (P.A.I.)	..	..	..	as occasion arises.			
Small-pox	See page 20	..	..	..	28	..	..	28
Other Infectious Diseases ..	See page 21	..	..	..	87	..	..	87

In addition, the County Council has made arrangements with the Royal Hospital, Wolverhampton, and Cleveland House, Wolverhampton, for the treatment of persons suffering from venereal diseases, and with the Mrs. Legge Memorial Home, Wolverhampton, for the admission of unmarried mothers without homes.

Public Vaccinators and Vaccination Districts.

Vaccination District.	Vaccination Officer.	Public Vaccinators.
Bridgnorth ..	A. H. Reynolds ..	Janet H. Anderson, L. E. Dickson, G. R. Kennedy.
Church Stretton ..	A. Dillon Smith ..	C. H. Flory, F. W. Hudson-Bigley, H. Gooch, J. McClintock.
Cleobury Mortimer ..	S. Whitehead ..	R. G. Addenbrooke, W. A. N. Robinson.
Clun	W. J. Beavan ..	G. H. H. Booth, W. B. Darroll, J. A. K. Griffiths.
	A. Lloyd Davies ..	S. J. Stewart, G. W. Stanley.
	M. George ..	H. R. Cross, T. H. Gandy.
	F. E. King ..	J. Adams, L. Gameson.
Drayton	G. H. Newitt ..	Walter Hall, W. King Hay, A. Lees Low, Frances L. Lewis.
Ellesmere	J. H. Butler ..	A. C. Heard.
	P. J. Whiston ..	C. D. Rogers.
Ludlow	R. G. Brookes ..	C. Fenwick, H. O. Watson.
	R. J. Price ..	Janet H. Anderson, C. H. Flory.
	D. J. Morris ..	A. Sanders Green.
Madeley	W. Edge ..	J. G. Boon, F. W. Hudson-Bigley.
	E. P. Smith ..	C. U. Whitney.
	B. H. Ellis ..	J. B. Robertson.
Newport	G. G. Crickmer ..	E. A. Elkington, G. E. Elkington, D. L. MacKenna.
Oswestry	T. Pughe-Jones ..	J. H. Crofton, W. B. A. Lewis, J. Hugo Matthews.
		H. S. O'Connor, C. E. Salt, E. H. Udall.
Shifnal	L. G. Harris. ..	G. R. Kennedy, D. J. M. Legge, S. B. Legge.
Shrewsbury ..	E. P. Everest, M.B.E....	C. W. Cassell, W. E. Gemmell, T. J. Gittins, J. H. Marshall, H. B. MacLeod, G. M. Westwood.
Wellington ..	R. Gwynne ..	H. W. J. Hawthorn, D. L. MacKenna.
Wem	R. J. Clayton ..	J. Dallewy, H. G. P. Le Fanu, J. R. Mitchell, V. E. Somerset.
Whitchurch ..	E. Jones ..	A. H. Clough

STATISTICS AND SOCIAL CONDITIONS OF THE AREA.

Area (in acres) of Administrative County	..	..	..	..	..	..	861,800
Population (Census 1931)	..	..	..	..	..	..	244,156
Estimated population Mid Year 1932.	{ for Birth-rates and Death-rates		..	..	..	..	244,400
	{ Urban—for Birth-rates and Death-rates		..	..	..	..	116,900
	{ Rural—for Birth-rates and Death-rates		..	..	..	..	127,500
Number of Inhabited Houses (Census 1931)	..	..	..	..	..	..	59,553
Number of Families or separate Occupiers (Census 1931)	..	..	..	..	..	..	60,904
Rateable Value	..	..	..	..	..	..	£1,070,722
Sum represented by a penny rate	..	..	..	..	..	..	£4,089

Shropshire is largely a rural county in which milk production and farm work generally find employment for a large section of the population. There are also certain areas in which coal mining and work in iron produce represent the chief industries, and it is naturally in those parts (of which Oakengates may be cited as an example) that the present industrial depression is most acutely felt. No general statement can be made describing the occupations followed in urban areas, as such are very varied, but those parts of the county which can be described as in any sense “ industrial ” are very limited in size and number.

Extracts from Vital Statistics of Registrar General.

		Male.		Female.		Male & Female.		Rates.	
		1931	1932	1931	1932	1931	1932	1931	1932
Births	{ Total ..	2,073	1,919	1,879	1,855	3,952	3,774	16.19	15.44
	{ Legitimate ..	1,932	1,812	1,757	1,747	3,689	3,559	15.11	14.56
	{ Illegitimate	141	107	122	108	263	215	1.08	.88
Still-births	.. ..	82	74	94	75	176	149	.72	.61
Deaths : Total	..	1,526	1,597	1,568	1,623	3,094	3,220	12.70	13.17
Infant Mortality	..	117	108	86	122	203	230	51	61
Legitimate Births		109	99	75	109	184	208	49	58
Illegitimate do.	..	8	9	11	13	19	22	72	102
Deaths of women dying in, or in consequence of child-birth :—				1927	1928	1929	1930	1931	1932
Total				17	16	14	22	21	15
From Sepsis				3	5	2	7	6	10
From other causes				14	11	12	15	15	5
Deaths from Measles (all ages)				13	13	7	12	10	4
,, Whooping Cough (all ages)				9	14	20	6	14	23
,, Diarrhoea (under 2 years of age)				8	14	27	17	11	8

POPULATION.

Below are given particulars of the population of the County at the time of the last four census returns, and the Registrar-General's estimate of the population at the middle of 1932 :—

1901 (Census)	..	..	239,783	1932 (estimated population)	244,400
1911	„	..	246,307		
1921	„	..	243,062		
1931	„	..	244,156		

Urban and Rural Districts (Population).

URBAN DISTRICTS.	Census Population.		Estim- ated Popu- lation.			Census Population.		Estim- ated Popu- lation
	1921	1931				1921	1931	
Bishop's Castle M.B.	1267	1352	1384	Atcham	.. ..	21981	22655	22020
Bridgnorth M.B. ..	5141	5151	5222	Bridgnorth	.. ..	8570	8292	8132
Church Stretton ..	1669	1705	1726	Burford	.. ..	1268	1159	1118
Dawley	7388	7363	7386	Chirbury	.. ..	3214	3058	3001
Ellesmere	1832	1872	1963	Church Stretton	.. ..	4517	4524	4478
Ludlow M.B. ..	5674	5642	5648	Cleobury Mortimer	.. ..	7299	6925	6855
Market Drayton ..	4714	4749	4844	Clun	.. ..	6244	5950	5913
Newport	3054	3439	3420	Drayton	.. ..	7155	7380	7244
Oakengates	11345	11189	11200	Ellesmere	.. ..	8009	7323	7500
Oswestry M.B. ..	9785	9754	9864	Ludlow	.. ..	8980	8677	8510
Shrewsbury M.B. ..	31006	32370	32990	Newport	.. ..	5745	5499	5523
Wellington	8146	8185	8925	Oswestry	.. ..	16399	16603	16130
Wem	2172	2157	2199	Shifnal	.. ..	7670*	7707*	7705
Wenlock M.B. ..	13714	14152	14040	Teme	.. ..	1649	1563	1582
Whitchurch ..	5653	6016	6089	Wellington	.. ..	11207	11227	11240
				Wem	.. ..	8583	8434	8485
				Whitchurch	.. ..	2012	2090	2064

* To this number must be added the population of the Staffordshire parishes of Blymhill and Weston administered by the Shifnal Rural District Council. The population of these parishes at the 1921 Census was 689, and at the 1931 Census 661, making a total of 8,355 and 8,368 respectively for the Rural District.

MARRIAGES.

The number of marriages in the Registration County during the year was 1,762, a fall of 155 as compared with 1931. This is the lowest since 1918.

Years	Marriages.
1921—1925	1927 } Yearly average.
1926—1930	1903 }
1931	1917
1932	1762

BIRTHS AND DEATHS.

Number of Births and Deaths, with birth-rates and death-rates for the last five years.

Year.	Births.	Deaths.	Natural increase in population.	Birth-rates.	Death-rates.
1928	4121	2924	1197	16.8	12.0
1929	4118	3354	764	16.89	13.79
1930	4095	2949	1146	16.79	12.12
1931	3952	3094	858	16.19	12.70
1932	3774	3220	554	15.44	13.17

Birth-rates and death-rates of each of the Sanitary Districts for the year 1932.

Urban Districts.			Birth-rates.	Death-rates.	Rural Districts.			Birth-rates.	Death-rates.
Bishop's Castle	..	..	18.06	13.72	Atcham	..	..	15.25	12.89
Bridgnorth	..	..	14.74	13.59	Bridgnorth	..	..	15.98	12.17
Church Stretton	..	..	10.42	12.16	Burford	..	..	11.62	18.78
Dawley	..	..	14.75	12.05	Chirbury	..	..	14.99	13.32
Ellesmere	..	..	17.82	14.77	Church Stretton	..	..	14.73	12.95
Ludlow	..	..	14.51	14.69	Cleobury Mortimer	..	..	15.60	11.81
Market Drayton	..	..	15.06	16.30	Clun..	..	..	15.89	15.72
Newport	..	..	16.95	10.52	Drayton	..	..	16.01	15.04
Oakengates..	..	..	14.64	15.26	Ellesmere	..	..	19.46	12.26
Oswestry	..	..	14.39	13.99	Ludlow	..	..	15.04	13.86
Shrewsbury	..	..	14.58	11.62	Newport	..	..	14.30	12.67
Wellington	..	..	15.91	11.20	Oswestry	..	..	14.44	12.33
Wem	..	..	14.09	12.73	Shifnal	..	..	17.91	12.97
Wenlock	..	..	18.09	15.59	Teme	..	..	16.43	11.37
Whitchurch	..	..	12.97	12.31	Wellington	..	..	16.63	14.25
					Wem	..	..	14.73	12.72
					Whitchurch	..	..	16.95	13.56
			15.14	13.19				15.71	13.16

Births.—There were 3,774 births during the year, giving a birth-rate of 15.44 per 1,000 of the population—a fall of .75 as compared with the previous year. The birth-rate is still a little higher than that for England and Wales but, while both have been falling almost constantly for a number of years, the decline has been rather more rapid in this county than in the country as a whole, and the rates are now practically the same, there being only .14 difference in favour of Shropshire.

Deaths.—The number of deaths recorded during 1932 was 3,220, an increase of 126, giving a death-rate of 13.7 per 1,000 of the population, as compared with 12.7 for the previous year. The death-rate for the county is usually a little higher than the death-rate for England and Wales but, while it has fallen from 12.3 in 1931 to 12.0 in 1932 in the country as a whole, in this county it has increased from 12.7 to 13.17.

Although there is a fall in the number of deaths from certain of the principal causes, the increase in the general death-rate of the county during 1932 is accounted for chiefly by the deaths due to *influenza* and to a less extent by those due to diseases of the *circulatory system* and to *congenital debility*.

The comparison with England and Wales is as follows :—

				Birth-rate.				Death-rate.			
				1929	1930	1931	1932	1929	1930	1931	1932
England and Wales	..	..	..	16.3	16.3	15.8	15.3	13.4	11.4	12.3	12.0
Shropshire	..	..	..	16.89	16.79	16.19	15.44	13.79	12.12	12.7	13.17

Principal Causes of Death.

				Yearly average. 1926—1930	1931	1932
Heart Disease	..	..	..	559	690	684
Other Circulatory Diseases	..	..	..	131	142	177
Cerebral Haemorrhage	..	..	..	226	204	222
Congenital Debility	..	..	..	128	118	141
Influenza	..	..	..	120	84	193
Bronchitis	..	..	..	156	150	141
Pneumonia	..	..	..	157	159	135
Tuberculosis	{	Pulmonary	..	129	155	126
		Other forms	..	38	37	34
Cancer, Malignant Disease	..	..	..	377	409	393

Of the 3,220 deaths which occurred in this county, if *heart disease*, *cerebral haemorrhage* and *other forms of disease of the circulatory system* be grouped together as causes of death chiefly attributable to degenerative changes, they account for 1,083, or a little more than one-third of the total. *Cancer*, which accounted for 393 deaths, contributes the next largest quota. *Influenza*, with 193 deaths, comes next on the list, although *bronchitis* and *pneumonia*, if considered together as representing diseases of the respiratory system exclusive of tuberculosis, were responsible for 276 deaths. Notwithstanding the prevalence of influenza, which as a rule has the effect of markedly increasing the mortality from pulmonary tuberculosis, the number of deaths from *tuberculosis* fell from 155 to 126. It is of course possible that the effect of the influenza outbreak may not become evident until the following year, when it may prove to have been a factor contributing to the number of deaths amongst those suffering from pulmonary tuberculosis in an advanced stage of the disease. As the number of deaths from *congenital debility* rose from 118 to 141 in the years under consideration, this condition will be reflected in its effect on the infant mortality rate.

The following table shows the position with regard to the chief matters referred to for each five-yearly period from 1901 to 1930, and for 1931 and 1932 :—

Periods.	Birth-rates.	Death-rates.	Infant Mortality Rate per 1,000 Births.	Death-rates. from Phthisis.	Death-rates from Cancer.
1901—1905	.. 26.34	15.2	102	.938	1.025
1906—1910	.. 23.98	14.64	92	.948	1.093
1911—1915	.. 21.21	13.83	82	.804	1.156
1916—1920	.. 19.16	14.55	71	.808	1.382
1921—1925	.. 19.71	12.49	60	.614	1.374
1926—1930	.. 17.17	12.53	56	.529	1.546
1931	.. 16.19	12.7	51	.636	1.679
1932	.. 15.44	13.17	61	.515	1.608

INFANT MORTALITY.

There were 3,774 births in 1932, and 230 children died before reaching the age of twelve months, giving an infant mortality rate of 61 per thousand births—four lower than that for England and Wales. This compares unfavourably with 1931, when there were 3,952 births, 203 deaths under one year of age, and an infant mortality rate of 51 per thousand. With a smaller number of births, therefore, there was an actual increase of 27 in the number of infant deaths. While an increase of 10 per thousand in the infant death-rate is a matter for regret, it should be remembered that the infant mortality in 1931 was, with the exception of the year 1927 when it was 48 per thousand, the lowest which had ever been recorded in this county.

The table below gives particulars of the more important causes of infant mortality in this county since 1905. It will be observed that, of 230 deaths of infants in the year under consideration, no fewer than 139 (or 60 per cent.) were attributable to premature birth, congenital defects or malformations.

Particulars relating to Infant Mortality since 1905.

	Average for years					No. for years.		
	1905 to 1909	1910 to 1914	1915 to 1919	1920 to 1924	1925 to 1929	1930	1931	1932
Births ..	5955	5427	4441	5137	4277	4095	3952	3774
Total deaths under one year	561	444	335	319	244	235	203	230
Measles and Whooping Cough	34	22	19	14	11	7	5	10
Influenza	..	..	11	3	5	1	1	8
Other Infectious Diseases	5	1	1	0	0	0	0	0
Tuberculous Diseases	19	12	6	6	4	3	5	3
Convulsions and Meningitis (not tuber- culous)	60	42	..	..	..	..	..	..
Bronchitis	46	33	31	22	10	8	4	10
Pneumonia	65	43	34	32	32	24	33	27
Diarrhoea	22	14	15	20	11	15	8	4
Premature birth and Congenital defects	128	119	..	..	124	125	118	139
Atrophy, Debility and Marasmus ..	96	74	..	..	..	..	..	..

The most striking feature in the above table is the increase in the number of deaths due to defects present at birth, which in themselves are almost sufficient to account for the increase in the infant mortality rate during the year. As has been stated in a previous report, while the number of deaths due to such causes remains high, it will be extremely difficult to reduce the infant mortality below a certain level. Prematurity and other congenital defects caused no less than 60 per cent. of the total infant mortality in 1932 in this county. Although this is difficult to account for, the health and nutrition of the mother must have an important bearing on this matter, and the infant mortality rate is a very important criterion of the standard of general health of the community. Much has been written and said in recent years of the importance of ante-natal care as a factor likely to bring about a reduction in maternal mortality, but it would appear probable that it may prove to be an equally important factor in bringing about a further reduction in infant mortality which since the beginning of the present century has been reduced by about 50 per cent., chiefly by attention to infant feeding and general hygiene.

Reference to the above table will show that, if the increase in the number of deaths due to congenital defects be combined with those due to the prevalence of influenza and bronchitis, the rise in the infant mortality rate during the year is more than explained.

The following table gives the infant mortality rate in each Sanitary District since 1901. By stating the rates for five-yearly periods up to 1930, a more accurate representation is given of the progress which has been made. Too much importance should not be attached to the figures for individual years in the case of any of the Sanitary Districts, as the smallness of the numbers concerned makes for wide variations from year to year. This is seen in the case of the Clun and Teme Rural Districts in which the infant mortality was nil for 1931. It will be observed that the five-yearly period brings out the fact that in certain of the urban and rural districts the infant mortality rate tends to be higher, and in others lower, than that for the total of all the urban and rural groups respectively; and it will also be observed that the rate for all the urban districts when worked out in five-yearly periods is greater than that for all the rural districts.

Infant Mortality Rate since 1901 for each Sanitary District.

URBAN DISTRICTS.				Average for years						1931	1932
				1901—	1906—	1911—	1916—	1921—	1926—		
				1905	1910	1915	1920	1925	1930		
Bishop's Castle	..	..	..	82	82	127	62	34	37	0	0
Bridgnorth	..	..	..	108	128	102	91	72	48	38	52
Church Stretton	..	..	..	116	90	100	54	16	67	0	0
Dawley	..	..	..	101	115	96	69	65	49	37	55
Ellesmere	..	..	..	92	84	47	79	54	72	43	114
Ludlow	..	..	..	108	104	77	93	53	58	11	61
Market Drayton	..	..	..	..	..	79	116	90	76	81	41
Newport	..	..	..	120	89	86	75	39	45	22	34
Oakengates	..	..	..	124	107	94	79	74	73	10	42
Oswestry	..	..	..	106	92	104	87	64	58	47	63
Shrewsbury	..	..	..	129	116	85	73	63	58	60	46
Wellington	..	..	..	109	84	98	69	47	58	31	56
Wem	..	..	..	94	103	73	55	77	49	34	64
Wenlock	..	..	..	102	93	81	67	57	58	51	75
Whitchurch	..	..	..	103	102	103	66	45	47	79	38
All Urban Districts	..	..	..	113	104	91	76	62	58	50	53
RURAL DISTRICTS.				Average for years						1931	1932
				1901—	1906—	1911—	1916—	1921—	1926—		
				1905	1910	1915	1920	1925	1930		
Atcham	..	..	..	87	77	75	56	59	53	62	59
Bridgnorth	..	..	..	90	67	68	64	70	65	18	46
Burford	..	..	..	73	44	67	45	70	43	71	77
Chirbury	..	..	..	76	67	55	74	49	77	93	44
Church Stretton	..	..	..	94	97	58	77	65	61	63	151
Cleobury Mortimer	..	..	..	98	82	75	63	62	39	74	65
Clun	..	..	..	96	84	76	75	58	55	0	85
Drayton	..	..	..	122	86	77	71	67	69	39	122
Ellesmere	..	..	..	95	88	74	73	56	65	21	75
Ludlow	..	..	..	90	83	60	67	53	53	41	46
Newport	..	..	..	111	103	89	95	75	40	64	50
Oswestry	..	..	..	99	96	81	79	64	60	70	43
Shifnal	..	..	..	96	72	81	44	36	37	39	58
Teme	..	..	..	119	103	83	68	39	53	0	115
Wellington	..	..	..	97	88	94	61	61	53	56	96
Wem	..	..	..	73	69	70	55	73	54	77	40
Whitchurch	..	..	..	49	59	73	68	38	45	115	86
All Rural Districts	..	..	..	95	92	76	68	60	55	52	68

INFECTIOUS DISEASE.

Full particulars of the notifications of cases of infectious disease are given in the table on page 17.

There was a considerable decline in the total notifications of infectious disease as compared with the previous year. *Tuberculosis*, which is dealt with in another part of this Report, showed a reduction of 57 in the number of notifications ; and in the case of all other forms of infectious disease the total number of notifications fell from 1,462 to 1,123. The reduction is chiefly in respect of *scarlet fever* and *diphtheria*, in which the number of notifications were, respectively, 255 and 221, or 129 and 179 fewer than in the previous year.

As regards the other diseases in which there was a fall, the reduction in the number of notifications was small, although in the case of *enteric*, of which there were 6 cases as opposed to ten in the previous year, the percentage decrease is large, whilst the number of *dysentery* cases dropped from three to none. *Puerperal Fever* and *Puerperal Pyrexia*, which may be considered together, showed a decrease only of 2, the number of notifications being 62.

Notification was received of three cases of *cerebro-spinal fever*, the same number as in the previous year ; and as in the previous year fortunately no cases of *small-pox* occurred in the County.

Certain of the infectious diseases, however, showed an increased notification, the largest being that for *pneumonia*, with 195 cases, representing an increase of 16. In this there is probably no great significance, as notification of cases of pneumonia in the past has been so poor as to bear little relationship to the prevalence of the disease ; and in fact deaths from *pneumonia* have sometimes exceeded the number of notifications. There were 44 notifications of *erysipelas*, an increase of 14, and 38 notifications of *ophthalmia neonatorum*, an increase of 6. Other notifications which showed an increase were those for *encephalitis lethargica*, of which there were five as compared with none in the previous year ; *acute poliomyelitis*, of which there were five notifications against three last year ; and one case of *malaria*, of which disease there had been no notification during the preceding year.

Closure of Schools.—During the year 37 schools, particulars of which are given below, were closed by the Education Authority to prevent the spread of infectious disease.

Measles	..	..	..	..	..	..	..	25
Diphtheria	..	..	..	..	..	..	..	10
Whooping Cough and Measles	..	..	..	..	..	..	..	1
Coughs and Colds	..	..	..	..	..	..	..	1

Measles.—In 23 instances attempts were made to prevent outbreaks of measles by closing schools for about a week six or seven days after the occurrence of the first case, in order to allow other children who might have been infected to develop the disease out of school. Yet in the case of only two closures was the step justified by the results. In all other instances either no further cases occurred at all or, as a result of the prevalence of the disease in a district near the school, it was re-introduced after re-opening and the outbreak which had been temporarily suspended ran its normal course.

It must be recognised that all the schools closed to prevent the spread of measles were very carefully selected, in that they were in sparsely populated country districts in which most of the homes of the children were widely separated. In numerous other schools no attempt was made to prevent the spread of infection by closure, and it was apparent from the commencement that its effect must be to prolong and possibly intensify the severity of the outbreak.

Return of Infectious Diseases for the year 1932.

DISTRICTS.	Population Census 1931	MALARIA.	SCARLET FEVER.	DIPHTHERIA (including Membranous Croup).	ENTERIC (Typhoid and Para- typhoid Fever).	PNEUMONIA.	PUERPERAL FEVER.	PUERPERAL PYREXIA.	CEREBRO-SPINAL FEVER.	DYSENTERY.	ENCEPHALITIS LETHARGICA.	ACUTE POLIOMYELITIS	OPHTHALMIA NEONATORUM.	ERYSIPELAS.	TUBER- CULOSIS.	
															RESPIRATORY	OTHER FORMS
		1	2	3	4	5	6	7	8	9	10	11	12	13	14	15
RURAL.																
Atcham ..	22655	..	42	5	.. 2	32	.. 1	9	..	..	..	.. 3	3	5	14	3
Bridgnorth ..	8292	..	6	2	..	8	1	..	..	..	..	..	2	4	2	1
Burford ..	1159	..	1	..	..	.. 5	1	.. 1	..	..	..	..	.. 1	..	1	1
Chirbury ..	3058	..	2	.. 1	..	3	..	2	..	..	..	..	..	.. 1	3	..
Church Stretton ..	4524	..	6	1	..	5	..	1	..	..	..	..	..	.. 1	3	.. 2
Cleobury Mortimer ..	6925	..	..	1	..	..	..	1	..	..	..	..	..	.. 1	6	4
Clun ..	5950	..	..	.. 5	..	2	..	1	..	..	..	..	..	.. 1	5	3
Drayton ..	7380	..	4	24	..	4	..	1	..	..	..	..	..	.. 1	3	2
Ellesmere ..	7323	..	9	2	..	8	..	3	..	..	..	..	..	.. 1	5	2
Ludlow ..	8677	..	5	12	..	5	..	2	..	..	..	..	..	.. 1	6	5
Newport ..	5499	..	..	56	..	9	.. 5	1	..	..	..	..	1	1	2	2
Oswestry..	16603	..	13	..	.. 1	5	..	3	..	..	..	..	5	1	8	4
Shifnal ..	7707	..	9	..	..	3	..	..	..	..	..	.. 1	1	2	8	12
Teme ..	1563	..	..	.. 7	..	19	..	..	..	..	..	..	.. 1	.. 2	1	3
Wellington ..	11227	..	6	..	..	9	..	.. 2	..	..	..	..	.. 1	3	5	1
Wem ..	8434	..	27	1	..	9	.. 2	.. 2	..	..	..	..	.. 1	2	4	4
Whitchurch ..	2090	..	..	..	..	1	..	..	..	..	..	..	..	..	2	..
	129066															
URBAN.																
Bishop's Castle ..	1352	..	1	..	.. 1	.. 7	.. 2	.. 1	..	..	.. 1	..	..	.. 1	.. 6	..
Bridgnorth ..	5151	..	3	..	..	2	..	..	..	..	1	..	..	.. 1	..	1
Church Stretton ..	1705	..	2	.. 13	..	9	..	..	..	..	1	..	.. 2	.. 1	.. 4	.. 1
Dawley ..	7363	..	4	2	.. 1	1	..	..	..	..	..	..	..	.. 1	..	7
Ellesmere ..	1872	..	2	..	..	2	..	.. 1	..	..	..	.. 1	..	.. 1	.. 6	.. 1
Ludlow ..	5642	..	3	..	..	1	..	..	..	..	..	..	..	.. 3	..	..
Market Drayton ..	4749	..	1	.. 4	..	5	..	.. 4	..	..	..	..	.. 2	..	3	2
Newport ..	3439	..	1	..	..	6	.. 1	2	..	..	..	..	1	..	2	1
Oakenates ..	11189	..	7	13	.. 1	3	..	1	..	..	1	..	2	..	9	8
Oswestry..	9754	..	8	10	..	9	.. 1	1	.. 3	..	1	..	8	.. 1	4	2
Shrewsbury ..	32370	..	72	6	..	17	.. 1	9	..	..	1	..	8	10	25	14
Wellington ..	8185	..	11	3	..	9	2	1	..	..	1	..	..	.. 1	8	4
Wem ..	2157	..	3	2	..	2	..	.. 2	..	..	1	..	.. 2	.. 1	.. 15	.. 15
Wenlock ..	14152	..	3	50	..	1	..	..	..	..	..	..	1	.. 1	3	1
Whitchurch ..	6016	..	4	2	..	4	..	..	..	..	..	..	..	..	..	..
	115096															
TOTAL ..	244162	1	255	221	6	195	15	47	3	..	5	5	38	44	163	108

No Small-pox cases were notified this year.

Outbreak of Diphtheria in Much Wenlock.—A minor but rather serious outbreak of diphtheria occurred in the Madeley Ward of Much Wenlock. The first case developed on the 12th July, and there were no further cases until the 22nd of that month, when the County Assistant School Medical Officer found that two children attending the Ironbridge School Clinic were suffering from diphtheria. As these children had been attending the Ironbridge C.E. School, an investigation was carried out there on 25th July, 1932; 57 swabs were taken and four children were found to be carriers. The Ironbridge C.E. School was closed on July 25th and the Coalbrookdale C.E. School two days later, both until a fortnight after the summer holidays.

Between 12th July and 9th August, twelve cases occurred and, with the exception of one, all were children. The disease was of a very virulent type and, notwithstanding the fact that as soon as the condition was diagnosed prompt treatment was given, two of the children unfortunately died, and in each case death took place within three days of the first symptoms.

Outbreak of Diphtheria in Ellesmere College.—The following quotation is taken from the Report made to the Ellesmere Rural District Council by Dr. Harris :—

“Apart from an outbreak of diphtheria at Ellesmere College there has been little infectious disease in the area.

“Twenty-three cases of diphtheria occurred in Ellesmere College, the first case was notified on 22nd February, 1932, and the last case on 25th November, 1932. During the course of investigations several carriers were found. At the commencement of the summer and winter terms each student had to produce a certificate stating that he had had a throat swab taken and giving the result. Even this precaution failed to terminate the outbreak and a carrier who had been pronounced negative was found to be still a carrier. Eventually all the children were Schick tested and the susceptible immunised against diphtheria. All the new students are to be tested and immunised, if necessary, on entering. This last measure was successful in terminating the outbreak.”

ISOLATION HOSPITAL ACCOMMODATION.

The accommodation available in order to secure the isolation and treatment of cases of infectious disease is in certain parts of the County quite inadequate. Section 63 of the Local Government Act, 1929, requires the County Council, as soon as may be, and within six months of being requested to do so by the Minister of Health, to prepare in consultation with the District Councils a scheme for securing adequate hospital accommodation for cases of infectious disease within the County, and this matter has been and still is receiving the consideration of the Public Health and Housing Committee.

The problem of institutional accommodation for cases of infectious disease could probably be most satisfactorily solved by the provision of one hospital for the whole county, situated somewhere in the vicinity of Wellington or Shrewsbury. Not only would such a hospital be in the area of the greatest density of population, but it would also have the equally important advantage of a good road service, as the chief roads in Shropshire all converge on the centre of the county. The improvement in the roads and in motor transport is yearly rendering the question of distance of less importance and, if a good ambulance service were provided, patients could easily be conveyed from those more distant parts of the county in which the population is too small to justify the construction of an isolation hospital.

It must be recognised that a hospital for cases of infectious disease will not be efficient unless it is large enough to maintain a permanent staff of a certain size, as otherwise the quality of the nursing and medical services will fall short of requirements. A centrally-situated hospital would also be the most satisfactory method of conforming with the requirements of Section 63 above referred to, as a multiplicity of smaller institutions scattered over the county could not be economically administered and would either result in a wastage of beds at times when few cases of infectious disease had to be provided for, or in a shortage of beds when infectious disease was prevalent in the district. This in fact is exactly what happens in certain cases at the present time. In addition, there is a reluctance on the part of District Councils with no hospitals of their own, but who have an arrangement with a hospital situated outside their district, to send cases there for treatment on a capitation basis of payment during an epidemic, as such a procedure has a very pronounced effect upon the rates; and it sometimes happens that an effort is made to isolate and treat a patient at home when he can only be properly provided for in an isolation hospital. Even when a patient can be looked after at home, it is one thing to isolate the patient and quite another to isolate the disease from which he is suffering, and which he is therefore liable to spread. If a rate were levied over the whole county for the purpose of the maintenance of such a central hospital, or if each District Council were to contribute to its cost on the basis of population or rateable value, the payments in the years when cases of infectious disease were few would be in the nature of an insurance against the time when infectious disease became more prevalent, would have little effect on the rates at such times, and would enable a really efficient service to be maintained at a comparatively small cost per patient.

It is usually considered that, for infectious diseases other than small-pox, one bed per thousand of the population should be provided in Urban Districts, and one bed per fifteen hundred of the population in Rural Districts: and that, for small-pox one bed should be provided for every three thousand of the population. It is probable that accommodation on this basis would not be required if one large centrally-situated hospital were provided for the whole county as, while infectious disease is never absent, it is never prevalent over the whole of the county at one time, and the margin of safety required in the form of empty beds during what may be described as normal times would be relatively much smaller with such a hospital than with a number of smaller hospitals allocated to the service of different parts of the county. On the basis of one bed for every 144 sq. ft. of floor space available (which is the standard set up by the Ministry of Health), there are in this County in the hospitals at present in existence 28 beds for small-pox cases and 87 beds for other cases of infectious disease. If the latter beds had been provided in one institution made available for use by the county as a whole, a very great deal would already have been done towards making the necessary provision for cases of infectious disease other than small-pox.

The table on page 21 shows the amount and nature of the accommodation at present available for ordinary cases of infectious disease. In no instance is it at all what it might be, although in the case of Atcham and Shrewsbury it is decidedly good; but in all other cases it falls short in varying degrees of the standard required, and in some hospitals the provision made is quite inadequate and grossly unsatisfactory.

Summary of Accommodation for Small-pox Cases.

The County Council is responsible for the isolation of small-pox for the whole county with the exception of the Boroughs of Shrewsbury and Wenlock. This power was obtained by a Special Order of the Ministry of Health made under the Public Health (Prevention and Treatment of Diseases) Act, 1913. Three hospitals situated at Prees Heath, Wellington and Ludlow, were taken over from the local authorities and were put in order for the immediate reception of patients. In the absence of small-pox in the County, the Prees Heath Hospital is used for advanced cases of consumption. The following is a summary of the small-pox accommodation for the County :—

<i>Hospital.</i>		<i>No. of beds.</i>	<i>Provided by</i>
Prees Heath, Whitchurch	.. ..	8	County Council.
Steeraway, Wellington	.. ..	4	
Ludlow	.. ..	2	
Underdale, Shrewsbury	.. ..	8	Borough of Shrewsbury.
Broseley	.. ..	6	Borough of Wenlock.

The condition of most of these small-pox hospitals is very unsatisfactory and, if there were a definite outbreak of small-pox in this County, the position would be extremely awkward. The very fact that, with the exception of the hospital at Steeraway, they have not had to be used for small-pox cases, for a very considerable time at least, tends to add to their structural and other shortcomings, and indeed it is not certain that all of them could be immediately utilised if required. The sanitary arrangements are usually not only inadequate, but sometimes also crude ; and the accommodation provided for nursing staff is such that it would create a difficulty if a staff had to be maintained in the hospitals for anything but a short period. The one hospital which is in a thoroughly satisfactory condition is that at Prees Heath, and this hospital is in continuous use for advanced cases of tuberculosis. As more beds are required for such cases, a solution of the present difficulty would be the provision of another hospital to be used for tuberculous patients till required for small-pox cases. This would allow of the scrapping of the Ludlow, Underdale and Broseley Hospitals for small-pox purposes,

**Summary of the Provision made in the County for Isolation Hospital Accommodation for
Infectious Diseases other than Small-pox.**

District.	Population (1931 Census).	Provision of Hospital accommodation.	No. of beds (allowing 144 sq. ft. per bed) and nature of accommodation.
Shrewsbury Borough .. and Atcham R.D. ..	32370 22655	} Monkmoor Isolation Hospital, Shrewsbury.	40—Accommodation good.
Oswestry Borough .. and Oswestry R.D. ..	9754 16603		
Market Drayton U.D. .. and Drayton R.D. ..	4749 7380	} Little Drayton Joint Isolation Hospital.‡	10*—Accommodation not good.
Bridgnorth Borough ..	5151		
Ludlow Borough ..	5642	Ludlow Isolation Hospital.	9—Accommodation not good.
Newport U.D. .. and Newport R.D. ..	3439 5499	} Newport Isolation Hospital. (A number of cases are also sent to Monkmoor Hospital, Shrewsbury).	4*—Accommodation extremely unsatisfactory.
Teme R.D. ..	1563		
Bishop's Castle Borough .. Church Stretton U.D. .. Dawley U.D. .. Ellesmere U.D. .. Oakengates U.D. .. Wellington U.D. .. Wem U.D. ..	1352 1705 7363 1872 11189 8185 2157	} No Hospital, but a number of cases are sent to Monkmoor Isolation Hospital, Shrews- bury.	2*—Accommodation extremely unsatisfactory.
Wenlock Borough ..	14152		
Whitchurch U.D. ..	6016		
Chirbury R.D. ..	3058		
Church Stretton R.D. ..	4524		
Clun R.D. ..	5950		
Ellesmere R.D. ..	7323		
Ludlow R.D. ..	8677		
Shifnal R.D. ..	7707		
Wellington R.D. ..	11227		
Wem R.D. ..	8434		
Whitchurch R.D. ..	2090		
Bridgnorth R.D. ..	8292	} No provision whatever.	
Burford R.D. ..	1159		
Cleobury Mortimer R. D...	6925		

* Slightly overestimated.

† Provides also for the Chirk R.D. of Denbighshire, which has a population of 4,879.

‡ „ „ „ „ Blore Heath R.D. of Staffordshire, which has a population of 2,863.

§ „ „ „ „ Knighton U.D. & R.D. of Radnorshire, which have a population of 5,791.

VACCINATION.

On page 23 are given particulars relating to vaccination for each vaccination district in the County for the years 1931 and 1932. It is not at present possible to give full details for 1932. In that year, however, there were 3,774 births and 1,671 declarations of conscientious objection; and the total number of certificates of successful primary vaccination of children under 14 years received was 1761.

In 1931, there were 3,902 births registered, 1,654 declarations of conscientious objection, and 1,759 certificates of successful primary vaccination.

It is suggested that a greater measure of protection would be secured if all element of compulsion were abolished and that, if the aims of vaccination were explained by a person acceptable in the home, such as a Health Visitor or District Nurse, vaccination would be accepted much more willingly, especially if it were done by the usual medical attendant, but that, as a measure of security, Local Authorities should have the power of compulsory vaccination in times of emergency.

LEGISLATION IN FORCE.

In addition to the Acts and Bye-Laws in force in the various districts of the County, the County Council has acquired powers under the "County of Bedford, etc. (Prevention of Tuberculosis) Order, 1926," and the "County of Salop (Prevention and Treatment of Small-pox) Regulations, 1920."

LOCAL GOVERNMENT ACT, 1929.

While a great deal of consideration has been given to matters which will have to be dealt with under the various sections of the Local Government Act, 1929, up to date it cannot be said that any drastic alteration has been carried out in the administration of the health services since the duties of the Boards of Guardians were taken over by the County Council.

Poor Law Medical Out-Relief.—The administration of Poor-Law Out-Relief has continued along the lines followed previous to the transfer of these services to the County Council.

Classification of Institutions.—The question of classification of Public Assistance Institutions has been very carefully gone into and a scheme has been provisionally approved by the Institutions (Classification) Committee, although it is subject to modification on further consideration. The classification provides, amongst other things, for the concentration in Berrington Hospital of all cases in need of skilled nursing, with the exception of sick children—for whom it is proposed to provide hospital accommodation in one-half of the hospital block of the Wellington Public Assistance Institution. Other proposals of the scheme provide for the concentration of the chronic sick in certain Public Assistance Institutions which would seem to be the most suitable for the purpose.

Appropriation.—Under Section 5 of the Act, a resolution has been passed by the County Council appropriating the Berrington Hospital as a general hospital for the purpose of the reception and treatment of the sick (destitute or otherwise), such appropriation to take effect as from 1st October, 1933, provided the works of adaptation which are at present in process of being carried out have by that date been completed; and the Public Health Committee has been made responsible for the administration of the Hospital from the date of the appropriation.

The position is, however, complicated by the presence of casual wards at this Institution, and it has been decided that the Public Health Committee shall undertake the management and administration of them, subject to the general direction and control of the Public Assistance Committee, until that Committee is in a position to provide accommodation for casuals otherwise than at the Hospital.

Particulars as to Vaccination of Infants and Children under 14.

VACCINATION OF INFANTS IN 1931.										VACCINATION OF CHILDREN UNDER 14 DURING 1932.	
Vaccination Districts.	Births registered in 1931.	Successfully Vaccinated.	Insusceptible of Vaccination.	Declarations of Conscientious Objections.	Died Unvaccinated.	Vaccination postponed.	Removed out of District.	Unaccounted for.	Total No. of Certificates of successful Primary Vaccination received.	No. of Statutory Declarations of Conscientious Objection actually received.	
Bridgnorth ..	234	112	..	102	6	2	3	9	92	93	
Church Stretton ..	62	37	1	19	3	1	1	..	54	16	
Cleobury Mortimer ..	127	51	..	69	5	..	1	1	44	62	
Clun.. ..	179	89	..	79	3	..	2	6	104	69	
Drayton ..	177	111	..	53	10	..	2	1	122	52	
Ellesmere ..	150	88	..	42	3	1	1	15	89	47	
Ludlow ..	231	118	..	104	7	..	2	..	120	96	
Madeley ..	375	118	..	195	13	11	27	11	128	191	
Newport ..	157	73	..	63	8	..	6	7	73	63	
Oswestry ..	416	107	1	189	17	1	9	92	57	178	
Shifnal ..	164	89	..	54	9	..	10	2	35	94	
Shrewsbury ..	942	532	..	289	48	1	24	48	548	317	
Wellington ..	419	117	..	268	19	..	2	13	154	272	
Wem ..	148	71	1	70	6	..	..	..	84	64	
Whitchurch ..	121	46	1	58	8	..	3	5	57	57	
	3902	1759	4	1654	165	17	93	210	1761	1671	
Percentage of Total No. of births											
1931 ..	..	45.07	.10	42.39	4.23	.44	2.39	5.38			
1930 ..	..	46.83	.2	42.4	4.54	.46	1.65	3.93			
1929 ..	..	46.81	.22	41.21	4.84	.32	1.52	5.08			

Consultation with Voluntary Hospitals.—Under Section 13 of the Act, a meeting with the Committee representative of the Voluntary Hospitals in this County took place recently, when the proposals of the County Council were submitted. There was no serious criticism made by the Voluntary Hospitals representatives, and indeed the proposals met with their general approval.

Delegation.—Under Section 6 of the Act, the functions relating to the domiciliary relief of the Blind which had been carried out in the past by the Guardians were delegated on 1st April, 1930, to the Public Health and Housing Committee, subject to the general direction and control of the Public Assistance Committee.

Water Supplies, &c.—Several applications under Section 57 have been received from District Councils for assistance towards the provision of water supplies, but so far no such assistance has been given under this Section. A scheme has been got out defining conditions to be complied with by District Councils making application, but it is probable that this scheme will again be reviewed by the Public Health Committee. No applications have been received with regard to schemes for sewerage works.

Whole-time Medical Officers of Health.—No scheme has yet been formulated for securing the appointment of whole-time Medical Officers of Health for county districts; and in fact this matter has been deferred until the completion of the review of the county districts.

Isolation Hospital Accommodation.—The question of the provision of hospital accommodation for the treatment and isolation of persons suffering from infectious disease has repeatedly been before the Public Health Committee, but so far the difficulties to be overcome have made it impossible to complete a scheme.

MATERNITY AND CHILD WELFARE.

(1) **Notification of Births.**—Notification of births, with the exception of those occurring in the Borough of Shrewsbury, must be sent to the County Medical Officer of Health by the midwife, doctor in attendance at the confinement, or other responsible person. The following are the particulars :—

	1930	1931	1932
Live births :—			
Total registered births	3,557	3,451	3,293
Notifications by midwives	3,014	2,850	2,770
„ by medical practitioners	435	422	405
„ by parents	9	2	1
Otherwise discovered	46	53	45
Excess of births registered over births notified or discovered	53	124	72

During the year 135 stillbirths were registered and 126 were notified—93 by midwives, 19 by medical practitioners, and 14 were otherwise discovered.

In the Borough of Shrewsbury, which is an independent Maternity and Child Welfare Authority, 481 live births and 14 still-births were registered during the year.

(2) **Medical, Health Visiting and Nursing Services.**—The Assistant School Medical Officers are also the Medical Officers for Maternity and Child Welfare Work, to which they devote three-tenths of their time.

There are twelve whole-time health visitors whose work includes attendance at child welfare centres, ophthalmia neonatorum nursing, tuberculosis visiting and attendance at tuberculosis dispensaries, measles visiting, supervision of mental defectives and also duties as Infant Protection Visitors. Ten of the whole-time health visitors are also engaged in school work and attend school medical inspections, school clinics, eye clinics, and visit physically defective school children. In addition, 72 district nurses are also part-time health visitors.

Visits paid by Health Visitors during 1932.

	To children.						To expectant mothers.
	Under one year.				1 to 5 years	Total.	
	1st	2nd	3rd	Subsequent.			
Whole-time (12)	2,044	2,199	2,102	4,853	15,214	26,412	807
Part-time (72) ..	1,249	1,361	1,641	6,401	13,962	24,614	6,078
Visits for 1928 ..	3,681	3,723	3,771	9,479	26,701	47,355	5,445
Visits for 1929 ..	3,400	3,388	3,558	9,883	25,625	45,854	5,784
Visits for 1930 ..	3,628	3,650	3,884	11,262	26,655	49,079	6,271
Visits for 1931 ..	3,538	3,657	3,685	11,448	27,642	49,970	6,545
Visits for 1932 ..	3,293	3,560	3,743	11,254	29,176	51,026	6,885

It is satisfactory to note that there is an upward tendency in the number of visits made by health visitors. This is especially so in the case of expectant mothers, a branch of the work which is capable of much further development.

Insanitary Conditions.—Particulars of the following insanitary conditions reported on by the health visitors were forwarded to the Sanitary Authorities for their attention, viz., unsatisfactory water supplies 17, inadequate ventilation 47, uncleanness 82, dampness 64, overcrowding 116, and nuisances 23.

Measles Visiting.—Infants suffering from measles are visited by the whole-time health visitors. During the year 104 houses and 212 cases were visited. In 150 of these cases no doctor was in attendance, and in 45 of them medical attention was advised.

Dental Treatment.—Nursing and expectant mothers who are not in a position to pay for private treatment receive treatment by arrangement with the School Dental Officers at the Welfare Centres, and 149 such patients—the same number as in the previous year—were treated.

Children under school age receive treatment by the Dental Officers under a similar arrangement. Only 24 children were treated,—16 less than in the previous year,—but the smaller the number of children under school age in need of dental treatment the better.

Orthopaedic Cases.—See under Orthopaedic Section, page 34.

(3) **Maternity and Child Welfare Centres.**—There are now fourteen Welfare Centres in the County, nine of which are held weekly, those at Church Stretton, Ellesmere, Newport, Highley, and Wem being held fortnightly. The Welfare Centre at Wem was not opened until after the end of 1932, and therefore nothing in this Report refers to the work at that Centre.

At most of the Centres a school clinic is held in the morning, the latter part of the day being devoted to maternity and child welfare work. There are no clinics for ante-natal cases only, and this work is done in conjunction with the child welfare work. An effort is made, as a rule, to do the ante-natal work during those parts of the day when the Centres are least busy, and cases which attend for re-examination are usually requested to be present at certain specified times. Ante-natal cases coming from a distance, however, and also fresh cases, are seen at such times as they find it possible to attend.

Attendances at Maternity and Child Welfare Centres in 1931 and 1932.

		CHILDREN.												EXPECTANT MOTHERS.					
		Under 1 year.						Between 1 and 5 years.											
		New Cases.		Total Cases.		Total Attendances.		New Cases.		Total Cases.		Total Attendances.		New Cases.		Total Cases.		Total Attendances.	
		1931	1932	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932	1931	1932
Bridgnorth ..	..	91	100	136	131	909	1184	23	32	161	175	2525	2620	96	80	150	120	204	164
Church Stretton ..	..	12	16	22	33	194	136	3	4	138	48	591	477	11	2	12	10	33	26
Dawley ..	..	118	101	164	156	1485	1472	16	19	165	152	3900	3541	65	48	70	54	235	142
Ellesmere ..	..	45	60	67	112	445	515	14	9	53	60	601	675	17	37	20	53	48	102
Highley ..	..	46	34	56	58	322	286	4	6	65	43	268	377	4	4	4	5	9	14
Ironbridge ..	..	123	110	219	149	1312	1209	33	29	354	158	1762	1895	32	43	41	48	43	87
Ludlow ..	..	85	75	156	131	703	1042	44	53	416	329	1289	1706	13	27	21	30	33	99
Market Drayton ..	..	91	95	130	126	705	991	49	57	222	222	2241	2654	66	40	70	58	138	126
Newport ..	..	79	73	117	110	536	343	16	27	196	124	528	419	54	64	55	70	89	116
Oakengates..	..	143	119	212	151	1322	1222	37	53	189	255	1249	1150	51	41	60	51	148	172
Oswestry ..	..	205	207	362	448	2016	1959	52	43	247	267	1824	1879	36	27	42	30	112	72
Wellington ..	..	141	146	210	239	1242	1475	67	78	229	194	2344	2408	39	67	43	70	93	163
Whitchurch ..	..	93	100	146	147	1462	1110	27	26	180	162	1467	1445	27	29	30	32	72	96
Totals ..	..	1272	1236	1997	1991	12653	12944	385	436	2615	2189	20589	21246	511	509	618	631	1257	1379

Under an arrangement with the Borough of Shrewsbury, by which the County Council makes a small payment per case attending the Shrewsbury Welfare Centre or Ante-natal Clinic, 47 expectant mothers made 72 attendances, and 51 children under five years of age made 213 attendances. This arrangement proves very helpful with County Council cases resident near Shrewsbury who are not, therefore, resident near any other Welfare Centre.

Addresses at Welfare Centres.—When time and opportunity allow, addresses on subjects of importance to health are given at the Welfare Centres by doctors, health visitors, dentists, and voluntary workers.

The following are the particulars for the years 1928, 1929, 1930, 1931 and 1932 :—

					No. of Addresses.				
					1928	1929	1930	1931	1932
Bridgnorth ..	..	..	..	..	17	19	15	10	17
Church Stretton ..	..	..	..	..	4	5	5	6	4
Dawley ..	..	..	..	..	42	45	39	45	47
Ellesmere ..	..	..	..	..	0	0	0	0	1
Highley ..	..	..	..	..	3	0	4	21	22
Ironbridge ..	..	..	..	..	28	22	8	15	27
Ludlow ..	..	..	..	..	23	1	0	0	27
Market Drayton ..	..	..	..	..	45	51	48	48	52
Newport ..	..	..	..	..	0	0	3	0	3
Oakengates ..	..	..	..	..	40	35	36	33	37
Oswestry ..	..	..	..	..	0	6	9	5	10
Wellington ..	..	..	..	..	50	48	43	48	52
Whitchurch ..	..	..	..	..	26	25	21	16	12
					278	257	231	247	311

(4) **Feeding of Infants.**—The first visit of the health visitor to an infant is paid as soon as possible after the midwife has ceased attendance on the mother. It was found in 1932 that 88.2 per cent. of the infants were breast-fed, 8.5 per cent. were artificially fed, and that 3.3 per cent. were on mixed feeding on the first visit. Mixed feeding usually proves to be the initial step towards putting an infant entirely on the bottle, although in a very small percentage of cases it is possible entirely to eliminate later the artificial part of the feed.

As the midwife ceases attendance in a normal case after the tenth day, and as practically all mothers are able to feed their babies naturally, the percentage receiving artificial food at this early age is much too high, and must have a definite bearing on infant mortality. No doubt to a certain extent this accounts for a much higher infant death rate amongst illegitimate children, as the mothers of such children frequently have to go out to work. Unfortunately there has been little or no improvement in this respect over the last ten years, the proportion of naturally fed infants being in each of these years between 88 and 90 per cent. on the first visit of the health visitor. The mischief has in these cases been done by the time the health visitor has paid her first visit.

As the percentage of naturally-fed infants is an important indication of the efficiency of the health visiting services, it is satisfactory to be able to record an improvement in this respect at the third and sixth months, which, although not great in the year under consideration, is at any rate in the right direction. It should be recognised in these difficult times that it is not only unhygienic and unphysiological to feed a baby artificially, but also difficult and definitely uneconomical. The following are the figures for the last three years :—

				1930	1931	1932
Percentage naturally fed at first visit of health visitor	..	..	..	89.7	89.2	88.2
„ „ „ „ three months	..	..	..	58.9	73.5	74.7
„ „ „ „ six months	..	..	..	38.5	65.4	66.1

It is a rule of the Central Midwives Board that “ a midwife must forthwith notify the Local Supervising Authority of each case in which it is intended to substitute artificial for breast feeding.” On receipt of such notifications each case is inquired into, and such advice and pressure as are possible are used to persuade the mother and midwife to continue the natural method of feeding, where there seems to be no sufficient reason for substituting artificial food. During the year 35 such notifications were received, as opposed to 49 in 1931. The reasons given were :—

Inability to breast feed	..	..	..	..	7
Refusal to breast feed	..	..	..	..	15
Poor health of mother (advice of doctor)	..	..	..	..	11
Weakly or physically deformed children	..	..	..	..	2

The great reduction in infant mortality which has taken place in the past thirty years has been due chiefly to a greater appreciation of the physiological requirements of the newly-born child, especially with regard to feeding. Nothing is more likely to affect adversely its future well-being than the initiation of artificial methods of feeding immediately or soon after birth, and the great importance of care in the early weeks and months of life is abundantly brought out by the following table which gives particulars of the ages at death of 900 children under twelve months, showing a steadily diminishing mortality for each period of increased age :—

Deaths of Infants under one year.

AGE.	1928	1929	1930	1931	1932	1928—1932	
	No. of Deaths.	No. of Deaths.	No. of Deaths.	No. of Deaths.	No. of Deaths.	No. of Deaths.	Per-centage.
Under 1 day	30	42	28	40	37	177	19.7
1 day—1 week	35	52	49	28	41	205	22.8
1 week—1 month	45	37	35	20	28	165	18.3
1 month—3 months	22	26	19	21	30	118	13.1
3 months—6 months	18	23	13	17	18	89	9.9
6 months—9 months	20	22	12	14	11	79	8.8
9 months—12 months	12	18	11	14	12	67	7.4
TOTAL DEATHS	182	220	167	154	177	900	

60.8

39.2

(5) **Ophthalmia Neonatorum.**—An arrangement has been made with the Salop Eye, Ear and Throat Hospital whereby the mother and child can be immediately admitted for treatment. If, however, the mother refuses to be removed or to allow the child to go to hospital, the services of a health visitor, who will remain in attendance on the case till cured, are offered to the doctor.

On receipt of notification of a case of Ophthalmia Neonatorum the doctor in attendance is immediately communicated with in order to place at his disposal all facilities for having the necessary treatment carried out. In order that early treatment may be secured in every case, whenever a copy of a medical help form is received showing that medical assistance has been sought by a midwife on account of a discharge from an infant's eye, a letter is immediately sent off to the general practitioner with regard to the case.

During the year 39 cases of ophthalmia neonatorum were notified, of which 36 cases recovered with apparently no injury to the eyesight. In two cases it is doubtful if there has not been some slight impairment of vision, and a definite opinion on this point must be postponed till these children are old enough to be subjected to a more comprehensive test of visual acuity. In another case the vision in one eye has been seriously affected, and, although the vision in the other eye is apparently normal, it is not certain that it is altogether unaffected.

The story is the same in each of these three cases: removal to the Salop Eye, Ear and Throat Hospital was delayed till definite damage had been done, and the most that could be effected was to prevent further impairment of vision. Reluctance on the part of the parents to consent to hospital treatment, on account of what appears to them to be a comparatively trivial condition, is understandable enough; but an effort is made to get all cases of ophthalmia neonatorum removed to hospital because of the seriousness of the consequences of neglect, which might quite easily amount to actual and complete blindness. The parent, therefore, who refuses to accept the advice of the medical attendant to have the child removed is undertaking a very great responsibility. It is seldom that the constant care and skilled nursing attention necessary for proper treatment is available in an ordinary home, and, as early diagnosis and prompt removal to the Salop Hospital would ensure complete recovery in all cases, damage to the eyesight in any case can only be attributed to culpable neglect on the part of someone.

(6) **County Home for Ailing Babies.**—The County Council works through a local committee which includes representatives from the Public Health Committee. A monthly report, including a complete financial statement, is furnished to the County Council.

The Home is chiefly intended for babies under one year of age who are obviously suffering from malnutrition due to one cause or another. Infants of mothers suffering from tuberculosis in a highly infectious state, however, are now admitted to the Home, with the object of getting immediate removal from the source of infection and afterwards, if possible, of arranging for some means of boarding the children away from their mothers. (See Tuberculosis Scheme, p. 45).

The number of babies admitted to the Home was 79 (20 less than in the previous year), and the average duration of stay was 64.2 days (4.2 more than in the previous year). The number of babies admitted was smaller, partly owing to the Home being quarantined for a time following a case of scarlet fever. Dr. Proctor, Medical Officer of the Home, states in his Annual Report : “ For the first time in several years one has to record a case of infectious disease. The infection was, without doubt, brought to the Home by a visitor. The open-air conditions would eliminate practically every spray-borne infection, even the common cold, but for visitors who lean over the cots.”

The reasons for admission to the Home were as follows :—

Malnutrition	..	..	42	Prematurity	..	..	..	11
Improper feeding	..	..	13	Tuberculosis Contacts	..	..	..	2
Marasmus	..	..	6	To restore breast feeding	..	..	..	5

Of those discharged, 66 were in good health, 3 had improved, and in two cases there was no improvement, one being transferred to the Royal Salop Infirmary, and the other to the Birmingham Children's Hospital to undergo certain treatment which it is not the object of the Home to provide.

Practically all the deaths occurred amongst babies who were suffering from prematurity or some form of congenital defect. The causes of death were prematurity in five cases, congenital heart disease in one case, enlarged thymus in another, and marasmus in three other cases.

(7) **Supply of Free Milk.**—Milk is supplied free in necessitous cases and, before the necessary order is given, each case is carefully inquired into by the Medical Officer of the Centre and one of the lady helpers ; or where there is no Centre, by the health visitor and a local responsible person. The opinion of the Relieving Officer is obtained in all cases, and all the reports are carefully scrutinised at the central office. Notwithstanding this careful supervision there has been a gradual increase in the amount of free milk supplied, no doubt chiefly as a result of the prevailing industrial depression, which is bringing a larger number of families within the scope of the scheme. Although the sum of £1,659 was spent on free milk in the year ended March, 1933, it must be recognised that this is undoubtedly preventive work of great value, because, if a considerable proportion of the poorer people go short of important articles of diet, as seems probable, the provision of milk should greatly improve the health of the children, lessen the amount of rickets, and diminish the number of infectious illnesses which are so frequently associated with this condition.

It is for this reason that an adequate supply of milk for the growing child and nursing mother is so very necessary, as it is one of the few foods which contains all the materials necessary for health in a suitable form for assimilation, and in such quantities as will meet normal nutritional requirements.

(8) **Infant Life Protection.**—Under the Children Act, 1908, every person accepting for reward a child under seven years of age is required to notify the fact within 48 hours to the Authority responsible for the Maternity and Child Welfare Services of the area. By the passing of the Children and Young Persons Act, 1932, which came into force on 1st January, 1933, the powers and duties under the Act of 1908 have been enlarged. Under the new Act, not only has the age requiring notice of intention to receive a child been raised from seven to nine years, but such notice must be given not less than seven days before the child is received.

As the provisions of the new Act did not come into force till the end of the year under consideration, the matters referred to in this Report were dealt with solely in accordance with the powers and duties under the original Act of 1908.

Infant Life Protection cases are put under the supervision of the whole-time Health Visitors, who are required to visit them at least once a quarter, or more frequently should the home conditions or health of the child not be found quite satisfactory. All unsatisfactory conditions, which the foster-parent cannot or will not remedy with the advice of the Infant Protection Visitor, are immediately reported and the necessary action taken. The mother of the child (if her address is known) is immediately communicated with and as a rule given an opportunity, if the case is not particularly urgent, either to receive the child herself or to have him put under the care of another and more suitable foster-parent; but, should she be unable or unwilling to do so, steps are taken to secure his removal to a place of safety, which in these cases means a Public Assistance Institution.

Particulars of Cases.

Number of cases on 1st January, 1932	..	..	..	..	129	
Number of cases added during the year	..	..	..	..	44	
						173
Number of cases	{	reached seven years of age	..	..	..	3
		legally adopted ..	..	..	..	3
		left County ..	..	..	..	7
		removed to relatives	..	..	..	10
		died ..	..	..	..	1
		removed to Public Assistance Institution	..			3
						27
Number of cases under supervision on the 31st December, 1932	..					146

As regards the three cases removed to a Public Assistance Institution, the reasons for taking action were, in one case, the dirty condition of the home and the low mentality of the foster-parent; in another, the foster-parent was unable to give the child the necessary attention owing to the severe illness of her husband and the failure on the part of the mother of the child to make the weekly payment agreed upon; and, in the third case, the foster-mother died suddenly, and no satisfactory arrangement for the child's welfare had been made by the surviving husband.

(9) **Midwifery Services.**—In 1931, there were 246 midwives practising in the County, 8 of whom were untrained. In the year under consideration, of the 247 registered midwives engaged in midwifery practice in Shropshire, 242 were trained, 5 being untrained.

Under the Maternity and Child Welfare Act, 1918, the duty is placed on the County Council of making provision for midwifery services, and its obligation in this respect it discharges through the agency of the Shropshire Nursing Federation and the affiliated District Nursing Associations. There were 101 District Nursing Associations in being during 1932, the same number as for the previous year.

Training of Midwives.—By an arrangement with the County Council, the Shropshire Nursing Federation sends suitable candidates for training as midwives, three-fourths of the expense being borne by the County Council, the remainder being met by the Shropshire Nursing Federation. The number of midwives sent for training under the arrangement since 1921 is as follows :

1921	14	1927	11 (1 did not complete training)
1922	13	1928	10
1923	14	1929	9
1924	4	1930	9 (1 did not complete training)
1925	8 (2 did not complete training).	1931	10 (2 did not complete training)
1926	3	1932	9 (1 did not complete training)

Medical Help sought by Midwives.—There was a slight decrease in the number of cases for which medical help was sought by midwives. An analysis of the reasons for sending for medical help is given in the following statement :—

	1930	1931	1932
On account of a complication of pregnancy	221	236	254
„ „ „ „ „ labour	733	784	719
„ „ „ „ „ the puerperium	68	62	72
„ „ of the health of the child	170	157	155
	<u>1192</u>	<u>1239</u>	<u>1200</u>

Payments under Midwives Act.—The number of claims for payment under the Midwives Acts sent in by medical practitioners was 722, and payments amounting to £1,234 were made to them. In the previous year, the number of claims for payment was 702, and the amount paid was £1,252. Although the number of claims made in 1932 was slightly greater than in the previous year, the amount paid was slightly less.

Still-births.—Notifications of 47 still-births were received from midwives. Twenty-three births were at full-term and twenty-four were premature. The sex of one child was not stated, but of the others 21 were males and 25 females.

Statistics relating to Work under Midwives Acts.

Year	Midwives practising in June.	Visits of Inspection.	Notification of					
			Medical help.	Still-birth.	Death of mother or child, no doctor in attendance.	Artificial Feeding	Liability to be a source of infection.	Having laid out Dead Body.
1925	255	694	882	48	3	51	28	22
1926	247	846	895	52	5	46	25	42
1927	236	854	898	55	3	36	37	28
1928	235	847	1056	50	2	44	32	32
1929	249	796	1066	41	4	38	45	38
1930	246	845	1192	57	8	47	59	38
1931	246	780	1239	35	4	49	57	35
1932	247	774	1200	47	2	35	70	49

(10) **Maternal Deaths.**—Every maternal death is now the subject of careful investigation by Dr. Weston, and a report is sent to the Ministry of Health for submission to the Maternal Mortality Committee which has been set up to enquire into this problem. A large amount of valuable information has already been collected and gone into by this Committee, its object being to ascertain the factors which contribute to the maintenance of the maternal death-rate with a view to making recommendations as to the steps which should be taken in order to bring about a reduction.

In 1932 there were in Shropshire 20 maternal deaths directly or indirectly due to pregnancy, or due to a condition complicated by pregnancy. Two of these cases, however, were residents in another administrative area and were in Shropshire only for confinement. The actual number of maternal deaths was therefore 18, and in 7 of these cases a doctor had been engaged prior to the confinement.

The following table gives particulars relating to maternal deaths in this County since 1928, and it will be observed that no fewer than 48 deaths out of a total of 101 were the result of a first pregnancy. This fact brings out the great importance of attendance to the health and general well-being of the mother who is approaching her first confinement, and also to the need for skilled nursing and medical attendance at the time it takes place. The factors, therefore, which bring about maternal deaths as a result of the first pregnancy would appear to epitomise the causes of the maintenance of the maternal death-rate.

Maternal Deaths 1928 to 1932.

Year	Total.	Causes of Death.			Number in first confinement.	Death-rate per 1000 live births.	
		Puerperal Fever.	Puerperal Pyrexia.	Other.		Shropshire.	England and Wales.
1928 ..	17	2	4	11	11	4.76	4.42
1929 ..	24	4	4	16	8	6.73	4.33
1930 ..	21	4	4	13	11	5.91	4.40
1931 ..	21	5	5	11	12	6.09	4.11
1932 ..	18	9	2	7	6	5.47	4.24
	101	24	19	58	48	5.79	4.30

(11) **Puerperal Fever and Puerperal Pyrexia.**—There were 16 cases of puerperal fever and 53 cases of puerperal pyrexia during the year. Arrangements have been made for the admission of these cases to Berrington Hospital; or if the medical practitioner in attendance so desires, a nurse is provided through the agency of the Shropshire Nursing Federation to look after the patient in her own home. Eight cases of puerperal fever were admitted to Hospital, of whom 6 recovered and 2 died. Of the fifteen cases of puerperal pyrexia similarly dealt with, 10 recovered and 5 died. One of these patients, admitted on account of puerperal pyrexia, died in her own home. She was making good, if somewhat slow, progress in the Hospital, but her husband insisted on her return home where, being unable to get the medical and nursing attendance she required, she ultimately succumbed to her illness.

(12) **Obstetrical Consultant and Consultant under the Puerperal Fever and Puerperal Pyrexia Regulations.**—Dr. Downer's services are now available for any doctor who desires a second opinion or assistance as a result of a serious complication or emergency arising during pregnancy, parturition, or the puerperium.

During the year Dr. Downer's services were taken advantage of in his capacity of Consultant in 13 cases, namely, one ante-natal case, two confinement cases, one post-natal case, and 9 cases of puerperal fever or puerperal pyrexia.

(13) **Provision of Maternity Beds.**—The following are the arrangements made for the provision of maternity beds by the County Council :—

Berrington Hospital.—Ordinary maternity cases are taken into this hospital at a fee of £2 2s. od. per week, and infectious cases at a fee of £3 3s. od. per week. The number of cases admitted during the year was 60 (16 infectious cases with an average length of stay of 32.3 days, and 44 ordinary cases with an average stay of 18.9 days). The County Council undertakes responsibility for payment in cases unable to afford the fee.

Newport Nursing Home.—Two beds are always available here. The County Council pays an annual fee of £10 per bed towards their maintenance. During the year 9 County Council cases were admitted, the average stay being 11.7 days.

The Lady Forester Hospitals, Broseley and Much Wenlock.—There are six maternity beds at Broseley hospital and four beds at Much Wenlock hospital. Occasionally other beds have been used. The County Council has agreed to pay £1 1s. a week towards the cost of any case recommended that cannot afford the fee.

Hostels for unmarried mothers and their infants.—An arrangement is in force with the Mrs. Legge Memorial Home, Wolverhampton, by which patients are admitted for six months, the County Council paying £2 a week for the first six weeks, the expense of the remainder of the period being borne by the Home. Two cases were sent during the year.

Institutional Treatment of expectant and nursing mothers and their infants suffering from Venereal Diseases is carried out under the Venereal Diseases Scheme at Cleveland House, Wolverhampton. Five mothers were sent during the year (see page 56).

MATERNITY AND NURSING HOMES.

Registration.—Under the Nursing Homes Registration Act, 1927, the definition of Maternity and Nursing Homes is as follows :—

“ *Nursing Home* ” means any premises used or intended to be used for the reception of and the providing of nursing for persons suffering from any sickness, injury, or infirmity, and includes a maternity home.

“ *Maternity Home* ” means any premises used or intended to be used for the reception of pregnant women or of women immediately after childbirth.

Any person carrying on a nursing home within the meaning of the Act without having had it duly registered is liable to a penalty, and application for registration must be made to the Local Supervising Authority, namely, the County Council, on a prescribed form accompanied by a fee of 5/-. The Local Supervising Authority has power to grant exemption from registration in certain cases, and registration has not been insisted upon in the case of the following Institutions :—

Eye, Ear and Throat Hospital, Shrewsbury.

King Edward VII. Memorial Sanatorium, Shirlett.

Lady Forester Hospitals, Broseley and Much Wenlock.

Shropshire Orthopaedic Hospital and Agnes Hunt Surgical Home, Oswestry.

Inspection.—The Inspector of Midwives is also the Inspector of Nursing Homes, and she submits a report on each Home once a quarter or more frequently should this be necessary. She is also required to inspect and report fully upon any Nursing Home in respect of which an application has been made for registration.

During the year four applications for registration were received, one of which was not granted owing to lack of staff with the necessary nursing qualifications. No appeal against the refusal to grant registration was made in this case.

Accommodation Provided.—During the year, four registered nursing homes were voluntarily closed, and on 31st December, 1932, the position was as follows :—

No. of Homes taking <i>general</i> cases only	..	..	..	..	..	8
Patient accommodation :—100 beds and 7 cots.						
No. of Homes taking <i>maternity</i> cases only	..	..	..	..	..	9
Patient accommodation :—13 beds.						
No. of Homes taking both <i>maternity</i> and <i>general</i> cases	..	..	..	..	..	17
Patient accommodation :—127 beds and 3 cots.						

In all, therefore, 34 Homes have been registered, the total patient accommodation provided being 240 beds and 10 cots.

ORTHOPAEDIC SCHEME.

There is a central hospital at Park Hall, Oswestry, and after-care clinics are held at Bridgnorth, Cleobury Mortimer, Craven Arms, Dawley, Ellesmere, Ironbridge, Ludlow, Market Drayton, Newport, Oakengates, Oswestry, Shifnal, Shrewsbury, Wellington, Wem, Whitchurch.

The Orthopaedic Centres are visited at regular intervals by a Medical Officer of the Hospital, and ten of the centres are visited weekly by specially trained nurses, the remainder being visited fortnightly. All the Orthopaedic Centres, except those at Ellesmere and Wem, are held on the same day as the Child Welfare Centres, an arrangement which makes for that co-operation between the two branches of the work which is so essential, as the early discovery of orthopaedic conditions in children under five depends almost entirely on the health visitors. The early discovery of cases amongst school children is largely in the hands of the School Medical Officers, who are also the Medical Officers in attendance at the Child Welfare Centres. By these means the Orthopaedic work is closely linked up with the School and Child Welfare work.

Tuberculosis.—In the case of lesions due to tuberculosis there is frequently delay on account of the insidious nature of the disease and the failure of the patients to recognise the seriousness of the comparatively mild symptoms which manifest themselves at its commencement. Many of the tuberculous cases, therefore, come under notice only after considerable damage has been done. The opinion of an orthopaedic surgeon, who has X-rays and every facility for diagnosis at his disposal, can be obtained at the Orthopaedic Hospital.

Acute Poliomyelitis.—A memorandum has been issued by the Ministry of Health on the present practice in the diagnosis and treatment of acute poliomyelitis, popularly known as "infantile paralysis." The latter term is, however, somewhat misleading, for while this disease most frequently affects young children, particularly those between one and five years of age, it is not by any means unknown amongst adults. Although acute poliomyelitis is a notifiable disease, the number of notifications gives but slight indication of its prevalence, as it may manifest itself in varying degrees of severity, certain cases showing symptoms merely of a feverish cold while others manifest profound and extreme forms of paralysis, resulting in crippling and, in certain outbreaks, a mortality of from 10 to 25 per cent. Most of the notifications, therefore, relate to serious cases with unfortunate terminal results.

As regards the spread of infection, infantile paralysis is one of those diseases which can be conveyed by a third person who acts as a carrier, and the probability is that there is normally a high degree of immunity in the general adult population with, at a time of epidemic, a considerable number of mild unrecognised cases and of infected healthy people who act as carriers just as in the case of diphtheria.

The after effects of the crippling forms of the disease being so far-reaching, the object of the memorandum is to emphasise the importance of early diagnosis that preventive treatment may be obtained at the earliest possible moment, and also to ensure that adequate measures may be undertaken to prevent the spread of infection. The value of human "convalescent serum" is discussed and, while the results of its study are inconclusive, and it is as yet impossible accurately to appraise its real value in the treatment of cases of this disease, its use as a remedy is encouraged and the methods by which it should be given are outlined.

The importance of early treatment of poliomyelitis is so great that arrangements have been made with the Orthopaedic Hospital for a specially trained nurse to be sent to help the medical practitioner, and afterwards to get the patient to hospital if necessary.

Attendances at Clinics.—The following table gives particulars of the attendances at the Orthopaedic Clinics during 1932. It will be observed that the great preponderance of cases are children between the ages of 5 and 16 years, who have been found to be in need of treatment as a result of school medical inspection. The tuberculous cases, which cover all ages, are the smallest in number, but their attendance at the clinics as a rule extends over a very prolonged period, although frequency of attendance is not perhaps so necessary as in many of the other cases.

Cases Treated at Orthopaedic After-Care Centres, 1932.

Age Groups.	Cases on 1st Jan., 1932.	Cases admitted during 1932.	No. Discharged.	Cases on 31st Dec., 1932.	Condition on discharge.			Other particulars.				
					Remedied.	Improved.	Unaltered.	Dead.	Left County.	Refused to attend.	Treated elsewhere.	No. of Attendances
Under 5 years	191	134	99	226	30	4	1	5	3	54	2	1,678
5—16 years	598	275	232	641	69	23	..	1	8	117	14	5,962
Over 16 years	401	220	259	362	39	120	1	4	12	61	22	2,320
T.B. cases of all ages ..	150	18	35	133	4	17	..	5	3	1	5	1,216
Totals	1,340	647	625	1,362	142	164	2	15	26	233	43	11,176

Cases admitted to Hospital.—Conditions and defects of such a nature that they cannot be adequately dealt with at the After-Care Centres, are admitted for treatment to the Orthopaedic Hospital, particulars of which are given below, from which it will be observed that almost 50 per cent. of the cases requiring admission are sent to hospital on account of tuberculous conditions. The total of all classes of cases admitted to the Orthopaedic Hospital was 113, as opposed to 152 cases during the previous twelve months, and represents the smallest number admitted in any year. The average number of beds occupied was 38, a reduction of 7 on the previous year, and also the smallest number occupied in any one year since the opening of the hospital.

Tuberculous Cases.—The number of tuberculous cases admitted was 53, a reduction of 18 on the previous year. Of the cases dealt with under this Scheme, 21 were diagnosed as suffering from affections of the spine, 16 of the hip, and 16 from affections of the other bones and joints.

Cases treated at the Shropshire Orthopaedic Hospital during the year and paid for by the Public Health and Education Committees.

Disease.	Under 5 years of age.	5—16 years of age.	Over 16 years of age.	Total.	Per- centages.
Tuberculosis of Bones and Joints	6	21*	26	53	46.90
Diseases and Injuries of the Nerves	3	9	..	12	10.62
Osteomyelitis	..	7	..	7	6.19
Congenital Deformities	4	3	..	7	6.19
Fractures and Dislocations	1	5	..	6	5.31
Spinal Curvature—Non-tubercular	..	5	..	5	4.42
Claw Foot	..	4	..	4	3.54
Rickets	2	2	..	4	3.54
Torticollis	1	2	..	3	2.65
Arthritis (Septic and Rheumatoid)	..	3	..	3	2.65
Club Foot	1	2	..	3	2.65
Diseases of the Hip—Non-tubercular	..	2	..	2	1.77
Flat Foot	..	1	..	1	.89
Conditions due to faulty footwear	..	1	..	1	.89
Injuries to hands	..	1	..	1	.89
Exostoses—both feet	..	1	..	1	.89
Total for 1932	18	69	26	113	
Total for 1931	22	93	37	152	

* Includes 5 Shrewsbury Borough School Children.

Review of the work under the Orthopaedic Scheme.—The orthopaedic clinics were originally opened principally as after-care centres for patients discharged from the Orthopaedic Hospital, in order that they might be kept under supervision by the Hospital staff and so that their treatment might be continued in the capacity of out-patients. The character of these clinics has gradually changed very considerably, as they are now used not only as after-care centres, but also, and perhaps chiefly, for the treatment of minor defects such as flat foot and the lesser degrees of other forms of orthopaedic defect. To a very great extent they are preventive in

nature, as cases detected by the Health Visitors and School Medical Inspectors come under treatment when it is possible to deal with the defects in their initial stages, thereby avoiding the need for admission to hospital at a later date on account of a crippling condition, when it may even be too late to bring about a complete cure. The beneficial effect of the work of after-care centres is reflected in the reduction in the number of beds occupied by County Council cases and, in addition, it can be confidently stated that, as a result of the Orthopaedic Scheme as a whole, there are now very few cases suffering from serious crippling conditions in Shropshire.

The following table shows the apportionment of the cases treated in the Orthopaedic Hospital and the average number of beds occupied by each class of case in each year since 1921. It will be observed that there has been a reduction of over 50 per cent. in the cases treated and in the number of beds occupied since the initiation of the scheme and that, while this reduction has on the whole been gradual, it is especially noticeable over the last four years. It cannot of course be guaranteed that this rate of reduction in the average number of beds occupied will progressively continue, as there are bound to be variations from year to year, but these figures show definite results and abundantly justify the Orthopaedic scheme.

Cases Treated and Average Number of Beds occupied in Shropshire Orthopaedic Hospital.

		1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
Tuberculosis	Cases treated	99	91	95	96	75	71	92	87	75	73	71	53
	Av. No. of beds	44	42	37	40	37	31	40	39	30	23	31	27
Med. Inspec.	Cases treated	95	47	56	70	70	72	71	61	59	83	67	48
	Av. No. of beds	21	11	11	13	14	15	15	14	8	13	11	8
Child Welfare	Cases treated	38	34	31	25	33	21	22	20	22	21	14	12
	Av. No. of beds	10	8	6	7	9	5	9	2	6	4	3	3
Total cases		232	172	182	191	178	164	185	168	156	177	152	113
Average No. of beds		75	61	54	60	60	51	64	55	44	40	45	38

A corresponding reduction in the cost to the County Council of hospital treatment of Orthopaedic cases is shown below. The variations in the cost from year to year do not exactly correspond with the number of beds occupied in each year as shown above, the explanation being that the figures for patients and beds occupied represent calendar years, whereas the cost of treatment represents payments made during the financial year.

Cost of Treatment of Cases in Shropshire Orthopaedic Hospital.

Scheme.	1921	1922	1923	1924	1925	1926	1927	1928	1929	1930	1931	1932
	£	£	£	£	£	£	£	£	£	£	£	£
Tuberculosis	5,281	5,431	5,205	4,436	4,986	4,398	3,208	5,055	4,989	3,695	2,619	3,195
Medical Inspection	3,299	3,194	1,356	1,414	1,728	1,894	1,663	2,047	1,434	1,003	1,567	1,067
Child Welfare	1,546	1,125	905	781	896	1,061	582	1,122	266	861	240	338
Total cost to C.C. ..	10,126	9,750	7,466	6,631	7,610	7,353	5,453	8,224	6,689	5,559	4,426	4,600

In addition to the cases treated by the Public Health and Education Committees, 32 cases of non-tuberculous deformities in persons over 16 years of age were treated wholly or partly by the Public Assistance Committee at a total cost of £465 9s. 5d. The average length of stay of these cases in the hospital was 48.2 days.

TUBERCULOSIS.

Susceptibility and Immunity.—The factors which determine an attack of any form of infectious disease are susceptibility to it and exposure to infection. Tuberculosis is not in any way an exception to the rule, and is perhaps the one disease which above all others exemplifies the truth of this statement. To certain forms of infectious disease the individual has little power of resistance till he has suffered from a definite attack, while to other forms of infection he becomes less liable with increasing age ; and it is to the second of these groups that tuberculosis must be considered to belong.

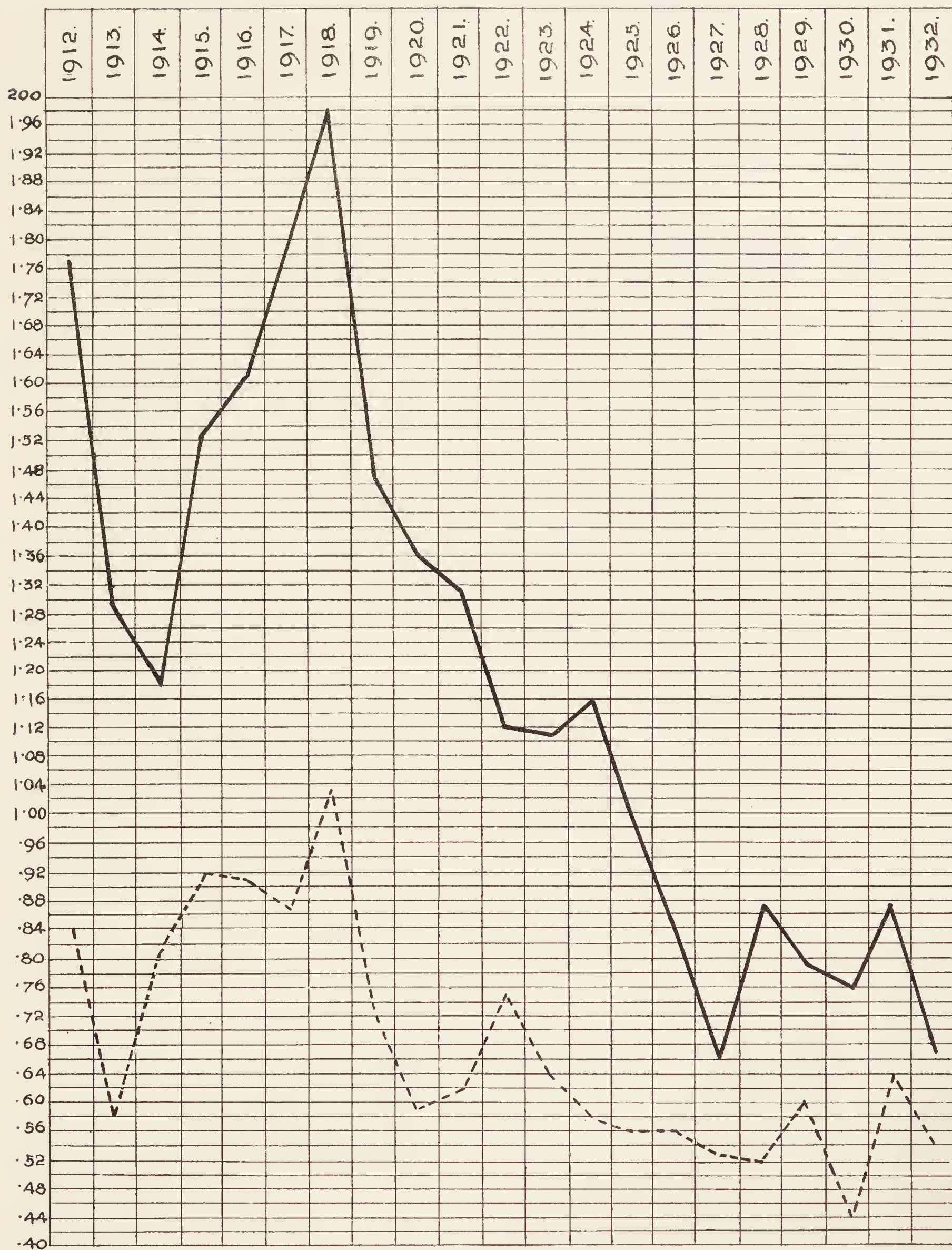
In any civilised community the number of people who suffer or have suffered from active tuberculosis is comparatively small, but the opportunities of coming into contact with the tubercle bacillus are numerous, and indeed it must be considered to be ubiquitous. To this fact must be attributed the comparatively great susceptibility to tuberculosis during the first few months and years of existence, and the relatively high powers of resistance to it which is shown by an individual in later life. By being exposed to small, repeated and irregular 'doses' of infection, a normal individual does not develop tuberculosis. His natural powers of resistance enable him to overcome the infection and, as a result of frequent exposures, he will gradually develop at least certain powers of resistance to the disease. The degree of immunity developed against tuberculosis in this way is at best a very indefinite quantity, and, as the 'dose' of infection cannot be regulated, there may at any time develop a break-down in the process. An individual may either be exposed to a mass infection, such as he could not normally be expected to overcome, or his powers of natural and acquired resistance may have for some reason, which in many cases can be ascertained, become very much reduced.

The most important contributory factors to the prevention of tuberculosis, therefore, are sound nutrition, which maintains the natural powers of resistance at their maximum, and good housing conditions which, by preventing overcrowding and allowing an abundance of fresh air, dilute any tuberculous infection in the home to the greatest possible extent. Lack of fresh air intensifies the infection, overcrowding increases the number of individuals exposed to it, and faulty nutrition diminishes natural and acquired resistance to the disease.

Notwithstanding the fact that certain occupations are conducive under certain conditions to tuberculosis, the greatest predisposing factor is malnutrition, by which is understood *faulty*, perhaps even more than *insufficient* food ; and this fact is brought out by the reaction to tuberculous infection at different age-periods and during certain of the crises of life. At puberty and during adolescence, when the food requirements of the individual are at their height, exposure to infection, or the existence of latent infection, tends to manifest itself in development of the disease in intensified form.

The fact that absolute cure is more likely at this period of life, when the response to nutritional stimuli is at its best, points to the important part played by nutrition, although the additional fact that at this time of life the disease usually runs a rapid course makes the need for early diagnosis and immediate treatment extremely urgent. Likewise the disease usually runs a rapid course in the case of the expectant mother. Her nutritional requirements are naturally very large and, although she may approach and get over the confinement without apparent ill effects, not infrequently her subsequent history is of the worst. The natural forces which have been mobilised to meet the emergency have exhausted themselves by the time the confinement is over, and subsequently there is a physiological proof of the truth of the statement that every action is followed by an equal and opposite reaction.

PULMONARY TUBERCULOSIS NOTIFICATIONS AND DEATH RATES. 1912 - 1932.



NOTIFICATIONS PER 1000.

DEATHS.

The above remarks apply more particularly to pulmonary tuberculosis which is due almost entirely to the human type of tubercle bacilli, but the same principles are true of other forms of the disease, 50 per cent. of certain forms of which are due to the bovine organism. The problem of tuberculosis can most effectively be dealt with by the application of methods likely to limit the dose of infection and to promote resistance to it by raising the standard of general health of the community. The chief benefits of sanatorium treatment are the educational facilities which it provides. Treatment of the disease is at best a palliative measure and, although humanity demands it in the interests of the individual, *in the absence of other measures* as a solution of the problem it contributes nothing.

Preventive Measures.—From the Public Health point of view, whatever steps may be taken for the treatment of patients, the measures necessary to deal with the Tuberculosis problem must be primarily and chiefly preventive in nature. These should include :—

1. Education in food values, especially in the food requirements of growing children.
2. Education in general healthy living and in the early symptoms, causes and prevention of the spread of tuberculosis.
3. The provision of better housing accommodation for the population generally and especially for families in which there is an infectious case of tuberculosis.
4. A more general use of open-air shelters, especially for children from tuberculous homes.
5. Segregation of babies born to infectious mothers.
6. Boarding out of children liable to infection in their own homes.
7. Segregation of advanced and highly infectious cases of tuberculosis.
8. A search for the source of infection in all cases, especially amongst the "Contacts" of children dying from acute generalised tuberculosis.
9. Regular supervision of infectious cases.
10. Regular supervision of "Contacts," especially contacts with a patient with an infectious sputum.
11. Improvements in the method of milk production, in order to provide a safe supply for the population generally.
12. An intimate co-ordination of all health schemes, School Medical Inspection, Maternity and Child Welfare, etc., in order to raise the general standard of health of the community.

Notifications and Deaths.—The following Table gives notifications and deaths from all forms of tuberculosis, grouped as pulmonary and non-pulmonary cases. There was no evidence of excessive incidence of, or mortality from, tuberculosis in any particular occupation in the county during the year, and it will be noticed that the number of notifications of, and deaths from, *pulmonary tuberculosis* fell respectively by 53 and 29 ; while in the case of *other forms of the disease*, although the number of notifications increased by 6 there was a fall of 3 in the number of deaths.

Notification previous to death was not received in eleven of the cases of pulmonary tuberculosis and in four of the cases of non-pulmonary forms of the disease. The ratio, therefore, of notifications after death to notifications before this occurred was 1 to 11, which is an improvement on the previous year when the ratio was 1 to 9. Notification is, however, compulsory, and failure to notify in these cases previous to death is accounted for by the very rapid course of the illness. There was no evidence of wilful neglect in the matter of notification, and it was therefore not necessary to take any action to enforce it.

Notifications and Deaths from Tuberculosis, 1932.

Age periods of cases.					Notifications.				Deaths.				
					Pulmonary.		Non-pulmonary.		Pulmonary.		Non-pulmonary.		
					M.	F.	M.	F.	M.	F.	M.	F.	
0—1					0	0	3	0	0	0	2	1	
1—5					1	2	5	10	0	0	4	2	
5—10					3	0	8	16	}	0	1	0	1
10—15					1	1	6	7		}	10	20	3	4
15—20					5	9	4	6	}		22	34	6	4
20—25					16	16	6	8		}	25	11	3
25—35					31	20	8	10	}		2	1	0
35—45					16	13	3	4		}			
45—55					11	6	0	1	}				
55—65					7	2	1	1		}			
65 and upwards					3	0	1	0			2	1	0	2
					94	69	45	63	59	67	18	16	
TOTALS					163		108		126		34		

There are three facts which this Table and the statistics relating to tuberculosis bring out annually. The *first* is the high incidence of the non-pulmonary forms of the disease in early life. This is accounted for by the fact that, unless infection in the form of a tuberculous patient is actually present in the home, tuberculosis of the lungs,—which is in almost every case due to the human type of organism,—is very unlikely to develop in the early years of life. It should be observed, however, that as childhood is the great milk-drinking period, the opportunity for infection and for the development of the non-pulmonary forms of the disease, which are in many cases due to the bovine type of bacillus, may enter the home in the milk supply. Unless, therefore, milk is obtained from a herd which has passed the Tuberculin Test, or is sold as “Pasteurised,” in order to make it absolutely safe it should be boiled before use. The deleterious effect on the milk of boiling, which one hears of in some quarters, can be ignored. It is either non-existent or so trivial as to be unworthy of serious consideration.

With regard to the *second* fact brought out by this Table, it will be observed that the number of notifications and deaths in the ten-yearly age period 15 to 25 are higher than the ten-yearly average for any other age period given in the Table. As this corresponds to the age when the nutritional requirements of the individual are at their highest—and this is especially so in the first five years of this period, when the physiological requirements of the child have been proved to be greater than those of his father, and when it requires care in order to meet those requirements properly even in a home in which there is no shortage of food—the relationship between tuberculosis and nutrition would appear to be obvious.

The *third* fact which the Table brings out is that the number of deaths from non-pulmonary tuberculosis is very much smaller than those due to the pulmonary type, not only in point of fact but relatively to the number of notifications. Against that must be set the fact that the consequences of the non-pulmonary forms of the disease are often very serious, leaving much crippling, deformity and disfigurement behind.

Relationship of Deaths to Notifications.—The following Table gives particulars of notifications and deaths during the past five years. It will be observed that, with regard to pulmonary tuberculosis, notifications and deaths roughly correspond, rising and falling together, although this is not always so. When there is a departure from this relationship, it can usually be assigned to a definitely ascertainable cause, such as an epidemic of influenza which hastens death in the case of patients in an advanced stage of the disease, sometimes putting up the death rate from tuberculosis in a particular year by terminating the illness some months earlier than would naturally have happened in the ordinary course of events. Reference to the graph opposite page 38, which illustrates notifications and deaths from pulmonary tuberculosis since 1912, demonstrates these facts very clearly, and also indicates that a sudden rise in any particular year is almost invariably followed by a corresponding fall. To form an accurate idea of the work under the tuberculosis Scheme, therefore, it is necessary to take averages over a number of years.

A further reference to the graph opposite page 38 will show not only that notifications and deaths tend to rise and fall together, but also that there has been a gradual approximation of the number of deaths to the number of notifications. This does not, however, indicate a diminution in the percentage of recoveries, *but is accounted for by greater accuracy in diagnosis*, due to the fact that a larger number of cases are seen by the Tuberculosis Officers before notification, and points to that close co-operation between them and the general practitioners which is so essential for the success of the Tuberculosis Scheme.

Notifications of, and Deaths from, Tuberculosis, 1928—1932.

Year	Pulmonary.		Other forms.		Total.	
	Notifications.	Deaths.	Notifications.	Deaths.	Notifications.	Deaths.
1928 ..	214	126	129	41	343	167
„ 1929 ..	194	147	138	33	332	180
„ 1930 ..	184	106	119	34	303	140
„ 1931 ..	216	155	102	37	318	192
„ 1932 ..	163	126	108	34	271	160

Tuberculosis Register.—A register of all cases of tuberculosis in the County is kept in the County Health Office, the number of cases at the end of 1932 and of the previous year being as follows :—

Number of Cases on Tuberculosis Register.

Year.	Pulmonary.			Non-Pulmonary.			Total cases
	Males.	Females.	Total.	Males.	Females.	Total.	
1931	780	743	1523	546	638	1184	2707
1932	792	715	1507	569	660	1229	2736

Supervision and Examination of Contacts.—On notification of a case of pulmonary tuberculosis, the health visitor makes a full report on the home conditions and visits at regular intervals. Every case of ill-health is reported without delay to the Tuberculosis Officer, who immediately carries out a medical examination. Children of school age from phthisis homes are also examined at each medical inspection by the Assistant School Medical Officer, and doubtful cases are referred for further examination by the Tuberculosis Officer.

Of the 163 patients notified as suffering from pulmonary tuberculosis, 42 gave a definite history of contact with a case of tuberculosis. An analysis of the home conditions of the notified cases at the time of notification showed that 90 had separate bedrooms, 35 shared bedrooms but had a separate bed, 35 shared beds, and three objected to the enquiries of the health visitor. The smallness, bad ventilation, and bad construction of many of these bedrooms are obviously factors which must contribute to the spread of infection ; and 26 cases of tuberculosis were discovered amongst the 471 contacts examined during the year.

It is of interest to note that of the 100 new Council houses erected at Judith Butts by the Shrewsbury Borough Council, 7 were let specially for re-housing tubercular families.

Home Visitation by Tuberculosis Officers and Health Visitors.—In addition to visits to the home for the purpose of examination of notified cases, “ contacts,” and “ suspects,” the services of the Tuberculosis Officers are always available to any Medical Practitioner in doubt about a patient who wishes to have the benefit of a second opinion. Below are given particulars of the visits of the Tuberculosis Medical Officers :—

On Notification	..	..	24	On discharge from Sanatorium	..	29
To contacts	..	..	139	On other occasions	..	655
To suspicious cases	..	..	176			

In the year under consideration the *Tuberculosis Officers* visited a total of 1,023 cases for one or other of the above reasons, and the total number of visits paid by the *Health Visitors* to phthisis homes was 3,295.

Examination of Sputum.—As it is of the utmost importance that sputum, if present, should be examined as often as necessary in every case of phthisis, arrangements have been made for the Health Visitor (with the consent of the practitioner in attendance) to obtain specimens when required so that the progress of the case and its degree of infectivity may be ascertained. The County Council provides facilities for the examination of these specimens of sputum, and medical practitioners are urged to take the fullest advantage of them.

The results of all sputum examinations are sent to the Health Visitors, who are instructed to pay particular attention to all cases from whom a positive sputum has been obtained, as such patients are of course the most infectious.

Of 163 cases of phthisis notified in 1932, a positive sputum was obtained from 83 patients. In 45 cases the result of the examination was negative, and in 32 cases there was no sputum to examine. In one case no examination was carried out because the patient objected, and in two cases in the Salop Mental Hospital the patients made it impossible for the sputum to be obtained.

Shelters.—The provision of shelters forms an important part of the Tuberculosis Scheme in order to secure sleeping accommodation for children in crowded phthisical homes, to aid in the recovery of early cases, and to accommodate advanced and therefore highly infectious patients. Shelters are sometimes provided for cases of surgical tuberculosis if their condition is such that they can in this way be looked after at home ; and in certain of these cases earlier discharge from the Orthopaedic Hospital is in this way secured.

There are at present 165 shelters in the County, 151 of which have been provided by the County Council.

Care Scheme.—There is a Central Care Committee, and there are also local Care Committees covering the whole County. The object of these Committees is to keep in touch with all cases of phthisis throughout the County, and, by means of advice and help, to enable the patient to live as far as possible a “sanatorium life.” Unfavourable conditions requiring special action are reported to the Tuberculosis Officers.

Pneumothorax or Collapse Therapy.—Pneumothorax treatment, which must be considered the greatest advance in tuberculosis work during the last half-century, consists in gradually bringing about the collapse of a diseased lung by the introduction of air between the layers of the pleura. Repeated “refills” at regular intervals are necessary over a period of years, and the rest to the lung which is thereby secured promotes healing of the diseased lung tissues. The considerations which determine the particular cases on which this form of treatment is carried out need not be discussed here, but its effects are not only curative, thereby shortening the duration of sanatorium treatment in many cases, but are also preventive, inasmuch as the liability of the patient to spread infection is greatly reduced.

Dr. Elliott states :—

“Apart from the great benefit to the individual receiving this treatment, artificial pneumothorax has a very important bearing upon the prevention of tuberculosis. It renders a number of infectious cases non-infectious by stopping all sputum, and in other cases it decreases the amount of infection by diminishing the quantity of the sputum so that these cases can be returned to ordinary life with much greater safety.

“Experience shows that contact with an open case of tuberculosis in the past is very common, so that to prevent the spread of the disease, it is imperative to attempt to make every positive case of tuberculosis non-infectious or, at any rate, less infectious. Artificial pneumothorax, either by stopping the expectoration or by diminishing it, materially helps, and it appears to be advisable to attempt collapse in every tubercle-positive case where one can be satisfied that the other lung will stand up to the extra work.”

The beneficial results of this treatment, affecting as it does not only the patient but those liable to come into close association with him, are so definite and far-reaching that it is satisfactory to be able to report a steadily-increasing application of it since it was commenced in this County ; and in the years immediately ahead of us a further expansion of this branch of the work seems likely to take place.

During 1932 artificial pneumothorax was induced in thirteen new cases, and there are now 17 cases who regularly attend the treatment centres. Arrangements have been made for this form of treatment to be given at the Shrewsbury Tuberculosis Dispensary, Wellington Public Assistance Institution and Shirlett Sanatorium ; and 186 refills were given during the year.

X-Ray Examination.—At the present time the County Council is without an X-Ray installation of its own, and in the past, when an X-Ray examination of a patient has been required, arrangements have had to be made for the patient to attend either at the Shirlett Sanatorium, which is difficult of access, or at the Royal Salop Infirmary.

The amount of X-Ray work which it has been possible to carry out under these conditions has therefore been somewhat limited, and the Tuberculosis Officers have for a long time felt the need for much greater facilities for X-Ray examinations as an aid to diagnosis and in order to ascertain the progress of patients under treatment. The development of pneumothorax treatment has rendered the provision of such an apparatus still more urgent, as in order to do this work satisfactorily X-Ray control is absolutely essential.

Through the generosity and public spirit of the Trustees of the late Charles Clement Walker, who have promised the County Council a grant up to £1,300, arrangements are now being made to secure an X-Ray plant ; and it is confidently expected that within the next few months the most up-to-date and suitable type of apparatus for the work will be installed at the Shrewsbury Tuberculosis Dispensary.

Light Therapy.—A Quadruple Carbon Arc for general treatment and a Tungsten Arc for local treatment were installed at the Tuberculosis Dispensary, Shrewsbury, in April, 1932. These are being used for the treatment of tubercular glands and tuberculosis of the skin. During the year 16 cases attended, and 730 treatments were given.

Tuberculosis of Bones and Joints.—Such cases are dealt with under the Orthopaedic Scheme, for particulars of which, see page 34.

Babies' Home Scheme.—This scheme was initiated in this County in 1923 and is one of the most satisfactory developments in connection with the tuberculosis work. No individual is more susceptible to tuberculosis than a newly-born child, and no one is more likely to convey infection than a mother who is suffering from the pulmonary form of the disease. The scheme is the outcome of the application of the principles involved in the prevention of tuberculosis, and in the Report for 1933 it is hoped to deal with it and the results obtained from it in a more complete and exhaustive manner. Only the briefest outline is given in the present report.

When an expectant mother is suffering from pulmonary tuberculosis she is sent to the Sanatorium for treatment ; as soon as the confinement becomes due she is admitted to a maternity nursing institution ; and after the baby is born it is removed immediately to the County Home for Ailing Babies. The mother is re-admitted to the Sanatorium and the baby is retained in the Home for a period of twelve months. At the end of this time, if it is believed that there would be danger of infection in allowing the child to return to its own home, arrangements are made for a relative to receive it or for it to be boarded out, or otherwise suitably provided for.

A Mantoux Tuberculin test is carried out on all babies admitted to the Babies' Home under this scheme, and in no case has this proved positive when separation of the child from its mother has been secured immediately after birth.

Since the initiation of the scheme 38 cases have been dealt with, and two cases were admitted during the year.

Prees Heath Sanatorium.—There are eleven beds in this hospital, which is intended for the reception of small-pox cases, but which, in the absence of an outbreak of this disease, is utilised for the accommodation of patients in an advanced stage of pulmonary tuberculosis, who are highly infectious and who cannot otherwise be properly provided for. Its main function is preventive, and accommodation for advanced cases is therefore an important part of any tuberculosis scheme.

The beds provided for such cases are insufficient in this County and, in order to utilise the beds in Prees Heath Sanatorium to the greatest advantage, it has been found necessary to limit their use almost entirely to female patients. Accommodation for male patients in an advanced stage of the disease has therefore to be found in the various Public Assistance Institutions, and, although shelters are provided for these patients, the arrangement is not at all satisfactory. Special provision for male patients is therefore urgently necessary.

During the year 14 patients were admitted to Prees Heath Sanatorium, five were discharged and ten died.

Shirlett Sanatorium.—There are 62 beds in this Institution which has been provided by the Association for the Prevention of Consumption in the County of Salop and the Hundred of Maelor, and to which the County Council sends all cases of pulmonary tuberculosis likely to improve under institutional treatment.

The table on page 45 gives an analysis of the cases admitted to the Sanatorium since its opening in 1911, and the following are the particulars of the admissions, discharges and deaths during 1932 :—

			Admitted	Discharged.	Died.
Males	..	..	63	57	5
Females	..	..	44	43	3

Analysis of the Cases admitted to Shirlett Sanatorium since its opening in 1911.

Year	Patients treated.	Known to be Alive.	Known to be Dead.	Left County.	Unaccounted for.	Cured.	Non-Tubercular.
1911	38	10	20	7	1	..	..
1912	74	29	29	11	3	2	..
1913	80	28	40	9	1	2	..
1914	114	34	61	13	1	5	..
1915	133	41	56	24	1	10	1
1916	158	44	71	27	..	15	1
1917	164	64	67	19	..	12	2
1918	124	31	46	36	..	10	1
1919	123	48	45	23	..	7	..
1920	120	53	47	16	..	4	..
1921	121	50	54	14	..	3	..
1922	107	34	60	13	..	*	..
1923	109	38	51	18	..	2	..
1924	151	73	56	20	..	1	1
1925	130	62	50	17	..	1	..
1926	110	45	49	16	..	*	..
1927	86	41	39	6	..	*	..
1928	111	62	41	8	..	*	..
1929	113	58	45	9	..	*	1
1930	113	73	30	10	..	*	..
1931	115	82	28	4	..	*	1
1932	107	96	10	..	..	*	1

* Cases are not described as cured until after the lapse of at least 5 years.

Tuberculosis Dispensaries and Examination Centres.—Tuberculosis Dispensaries were held twice weekly at Shrewsbury and Wellington, weekly at Oswestry and once a month at Whitchurch, Ludlow and Bridgnorth. In addition, under an arrangement made by the Church Stretton Care Committee three sessions were held for examination of contacts and twenty-two attendances were made. Below are particulars of attendances at the Tuberculosis Dispensaries :—

Attendance at Tuberculosis Dispensaries and Examination Centres in 1932.

No. of Cases.	DISPENSARIES.				Notified Cases.		Non-notified Cases.				Total.
					School Children.	Other.	School Children.		Other.		
							Contact.	Suspect.	Contact.	Suspect.	
389	SHREWSBURY.										
	No. of new cases	..	..	..	..	18	9	35	37	77	176
	Total attendances	..	..	..	308	394	92	141	145	156	1236
173	OSWESTRY.										
	No. of new cases	..	..	..	3	7	6	21	6	24	67
	Total attendances	..	..	..	225	536	33	45	14	44	897
615	WELLINGTON.										
	No. of new cases	..	..	..	..	12	15	57	35	126	245
	Total attendances	..	..	..	1517	1398	111	237	112	351	3726
52	WHITCHURCH.										
	No. of new cases	..	..	..	..	4	7	7	3	1	22
	Total attendances	..	..	..	13	43	10	18	6	6	96
71	LUDLOW.										
	No. of new cases	..	..	..	..	11	3	5	11	11	41
	Total attendances	..	..	..	8	77	18	9	20	15	147
79	BRIDGNORTH.										
	No. of new cases	..	..	..	..	6	7	6	11	11	41
	Total attendances	..	..	..	25	96	19	14	34	20	208

Public Health (Prevention of Tuberculosis) Regulations, 1925, and the Public Health Act, 1925 (Section 62).—No action was necessary during the year.

Death Rates in County Districts :—The Table below gives particulars with regard to death-rates for each Sanitary District in ten-yearly periods from 1901 to 1930, whilst those for the years 1931 and 1932 are given separately. It should be recognised, with regard to the individual Sanitary Districts, that the smallness of the numbers concerned makes for wide variations from year to year in the tuberculosis death-rate; and the more reliable index is therefore the average over the ten-yearly periods.

Death-rates from Pulmonary Tuberculosis in each Sanitary District, 1901—1932.

Sanitary Districts.	Estimated Population, 1932.	Average of Death-rates for ten year periods.			Rates for	
		1901 to 1910	1911 to 1920	1921 to 1930	1931	1932
URBAN.						
Bishop's Castle	1,384	1.508	1.520	.470	..	.723
Bridgnorth	5,222	1.304	.971	.905	.589	1.341
Church Stretton	1,726	.453	.939	.610	1.245	1.159
Dawley	7,386	.821	.901	.654	.407	.542
Ellesmere	1,963	.803	.915	.481	..	.509
Ludlow	5,648	1.350	1.468	.737	1.056	.885
Market Drayton	4,844	*	.721	.535	1.062	.619
Newport	3,420	1.234	.976	.583	.292	1.169
Oakengates.. ..	11,200	.777	.450	.542	.356	.625
Oswestry	9,864	1.168	1.210	.989	1.024	.608
Shrewsbury	32,990	1.217	.990	.750	.809	.455
Wellington	8,925	1.072	.933	.570	.572	1.120
Wem	2,199	.709	.399	.455	.937	.455
Wenlock	14,040	1.407	1.059	.602	1.074	.712
Whitchurch	6,089	.770	.955	.479	.505	.164
* No data available.						
RURAL.						
Atcham	22,020	1.011	.859	.493	.398	.272
Bridgnorth	8,132	.599	.457	.446	.975	.123
Burford	1,118	.980	.479	1.098	..	..
Chirbury	3,001	1.205	.956	.523	.656	.333
Church Stretton	4,478	.825	.719	.496	..	..
Cleobury Mortimer	6,855	.656	.735	.579	.434	.584
Clun.. ..	5,913	.967	.852	.396	.353	.169
Drayton	7,244	.740	.597	.383	.271	.828
Ellesmere	7,500	.903	.388	.328	.399	.133
Ludlow	8,510	.535	.626	.433	.809	.235
Newport	5,523	.875	.715	.544	.548	.181
Oswestry	16,130	.821	.864	.513	.555	.558
Shifnal	7,705	.746	.635	.512	.523	.519
Teme	1,582	1.128	.979	.480	.648	..
Wellington	11,240	.870	.808	.684	.805	.534
Wem	8,485	.828	.565	.441	.588	.589
Whitchurch	2,064	.521	.308	.193	.957	.969
Urban Districts	116,900	1.133	.960	.679	.748	.659
Rural Districts	127,500	.825	.700	.525	.537	.384
Whole County	244,400	.961	.816	.580	.636	.516
England and Wales ..		1.146	1.007	.768	.742	

MILK SUPPLY.

Tubercle in Milk.—The conditions conducive to tuberculosis in cattle are dirty, insanitary, ill-lit, badly-ventilated and overcrowded cowsheds, which have been used to accommodate an animal which has suffered from tuberculosis. Cowsheds which have been used to accommodate tuberculous animals in an infectious condition must be comparatively common, as investigations have shown that, as a very moderate estimate, upwards of 30 per cent. of all milch cows are suffering from one form or other of this disease and, although these cows are not necessarily giving tuberculous milk, they are, however, potentially infectious. In such a cowshed, unless it is one which is particularly well-constructed, and in which every effort has been made to keep it in a thoroughly clean and sanitary condition, it is almost a certainty that every cow accommodated in it will become infected with the disease. The tubercle bacillus is difficult to kill, it will withstand high temperatures for a long period, and it will remain alive outside its host for months. The manure, which only too frequently adheres to the walls and floors of the cowsheds and litters the farmyard and its environs, must therefore in many cases be an ever-present source of infection, especially as a comparatively common form of the disease in cows is tuberculosis of the intestinal tract. In addition, when a cow suffers from tuberculosis of the lungs, and has as a consequence a chronic cough, it is spraying the atmosphere with infective material, and infected mucous secretions are finding their way on to the walls and floors of the cowshed.

When a susceptible animal is exposed to such conditions, the result must almost inevitably be serious; and a milch cow by the very nature of things must be extremely susceptible to tuberculosis. She is either in milk or in calf, or both, and it is a physiological fact that as a consequence she is, throughout the whole of her life, getting rid of substances vitally important to health in quantities much in excess of those which she can possibly absorb from her food, more especially if she happens to be a large milker. Indeed, it has been found that the large milkers are the most susceptible to tuberculosis and are therefore the first to re-act to the tuberculin test. Practically all milch cows, although adequately fed as regards quantity, are suffering from chronic malnutrition and are therefore extremely liable to tuberculosis.

Veterinary Inspection.—The value of veterinary inspection alone, when carried out in order to procure milk free from tuberculosis, is very limited, as a cow giving tuberculous milk, and therefore suffering from tuberculosis of the udder, passes through three stages:—

- 1.—A stage when the disease can be detected only by the bacteriologist.
- 2.—A stage when it can be recognised by the bacteriologist and the veterinary surgeon; and
- 3.—A stage when it can be recognised by the veterinary surgeon and the farmer.

While veterinary inspection, therefore, can make milk less dangerous, it cannot be relied upon to do much to make it safe unless it is accompanied by free sampling for purposes of bacteriological examination.

No progress will be made towards the elimination of bovine tuberculosis till it is recognised that the prevention and elimination of this disease in cattle present the same problem as in human beings, and till it is dealt with along parallel lines, viz., by the removal of conditions conducive to infection and by the elimination of animals liable to spread the disease.

It must be accepted that there are or should be, broadly speaking, only two kinds of milk, viz., clean milk and safe milk, as, while all milk could be produced under clean conditions, safe milk can only be procured by having all milk pasteurised unless, with regard to the particular problem of tuberculosis, it has been obtained from a herd which has recently passed the tuberculin test.

Milk and Dairies (Consolidation) Act, 1915.—Action is only taken under Section 4 of this Act when the presence of tubercle bacilli in milk produced in this county is reported by another Authority. Occasionally, however, investigations are conducted where the supply has otherwise come under suspicion. One of the part-time veterinary surgeons is then sent to inspect the animals on the farm where the milk is produced. At the time of his inspection he takes individual samples of milk for bacteriological examination from suspected animals and bulk samples from the remaining animals. Very frequently, the individual samples give a negative result and the bulk samples are reported as showing the presence of tubercle bacilli, when of course the veterinary inspector is required to carry out another inspection and submit further samples for examination. The remarkable thing about these veterinary examinations is how often the veterinary surgeon fails to ascertain the tuberculous animal until sampling and re-sampling of the milk have been carried out ; and it is most exceptional for any cow to be dealt with as a result of clinical examination without confirmation by biological examination of the milk of that particular animal. (This is an interesting side-light on the value of veterinary inspection unless supported by bacteriological tests.)

Below are details of the work carried out during the year as a result of reports submitted by outside Authorities :—

Number of farms affected, 49 ; Cows examined, 1,424.

Number of samples of milk taken, 345 (Individual 198, Bulk 147).

Results of examination of samples of milk :—

Positive 66 (Individual 42, Bulk 24).

The presence of tubercle bacilli in twenty-four bulk samples necessitated the re-examination of 250 cows, but the figures for this further sampling are included in those already given above.

In addition, two other farms came under suspicion, and 11 samples (7 bulk, 4 individual) representing 114 cows were submitted, with the result that one tuberculous cow was discovered.

Tuberculosis Order, 1925.—This Order requires anyone knowing of the existence of a cow showing definite clinical signs of tuberculosis to report the matter to the Police in order to have it dealt with. Usually, before anyone is in a position to do so, however, the animal is already heavily infected with the disease and has been highly infectious for a considerable period. As a result of sampling of the milk of the individual cows, for purposes of biological examination in order to ascertain the presence or absence of tubercle bacilli, it is sometimes possible to detect the disease in a comparatively early stage and to have the offending animals slaughtered under the Tuberculosis Order before the maximum of damage has been done.

Results of Post Mortem Examinations of Cows, 1932.

Description of Animals.	A. Tuberculosis of the Udder.	B. Giving tuberculous milk and showing Lesions of Tuberculosis.	C. Tuberculous Emacia- tion.	D. Affected but not as in Columns A, B, C.	E. Not affected.	Total.
Cows in milk ..	39	32	223	214	1	509
Other cows or heifers ..	18	..	113	137	4	272
Other bovine animals ..	..	..	12	10	..	22
Totals ..	57	32	348	361	5	803

Milk and Dairies Order, 1926.—No arrangements have been made by the County Council for the routine inspection of cattle under Article 8 of this Order. The veterinary inspection of cattle which is carried out when tubercle bacilli have been discovered in the milk is of limited usefulness as, although this is the first step towards the elimination of diseased animals from a herd the milk of which is known to be dangerous, it is quite inadequate, and much tuberculous milk must go undetected as a result of the fact that there is no systematic sampling of milk. If inspection is to be of any real benefit to the community, it will be necessary to have veterinary surgeons engaged whole-time on the work, and to arrange for systematic sampling of the milk of dairy herds to be combined with veterinary inspection.

There were 28 notifications that milk from this County was being produced under unclean conditions. The producers were communicated with and the Agricultural (Education) Department and the District Medical Officer of Health were informed with a view to suitable action being taken to bring about an improvement in the methods and secure the production of clean milk.

Milk (Special Designations) Order, 1923.—Under this Order licences to produce graded milk are issued to those producers who have complied with specified conditions relating to the standard of cleanliness of the milk, the health of the herd, and the condition of the cowsheds. Broadly speaking, the County Council is responsible for the granting of Grade A licences and the Ministry of Health for the granting of licences to produce Certified and Grade A (Tuberculin-Tested) milk. These designations are not self-explanatory, as *Certified Milk* is the highest grade of milk produced, and is obtained from cows which have passed the tuberculin-test, whilst the standard of cleanliness required is higher than for any other grade of milk. With regard to *Grade A (Tuberculin-Tested) Milk*, the standard of cleanliness required is not so high as for Certified Milk, although the cows have to pass the tuberculin-test. *Grade A milk* is obtained from cows which have been submitted to examination by a veterinary surgeon, but which have not undergone the tuberculin-test, and the same standard of cleanliness is required as for Grade A (Tuberculin-Tested) Milk.

The position at the end of the year under this Order as compared with that for previous years was as follows :—

						No. of Producers.		
						1930	1931	1932
Licensed to produce—								
Certified Milk	..	..	..	..	..	1	2	5
Grade A (T.T.) Milk	..	..	..	..	..	4	6	4
Grade A Milk	..	..	..	..	..	9	11	12
						—	—	—
						14	19	21
						—	—	—

In addition, four licences for bottling Grade A Milk were granted.

An arrangement has been made whereby Sanitary Inspectors in whose areas Grade A Milk farms are situated take samples of the milk every quarter on behalf of the County Council. These are sent for examination to the laboratory at the Harper Adams Agricultural College. The sampling revealed that generally speaking the milk was of a high quality, with a bacterial count in most cases under 10,000 and bacillus coli absent from 1 c.c.

Accredited Milk Producers.—The Agricultural (Education) Committee have initiated a scheme under which a Register (known as the Accredited Milk Producers Register) is kept, and in which are entered the names of all milk producers who have applied for enrolment and have satisfied the Registration Authority that they have consistently produced a milk of the standard of cleanliness required by the conditions governing the scheme. Samples of milk are taken and examined regularly, and the premises of the producers are inspected by officials of the Agricultural Department who, in the event of an unsatisfactory sample being obtained, go into the question, in order to ascertain the cause, and advise on methods of how best to secure the production of clean milk.

One of the objects of the scheme is to educate farmers on methods of clean milk production, thereby paving the way by a natural transition for the production of one of the graded milks indicated above. The scheme has done much to raise the standard of cleanliness of milk produced in the County, and it should be recognised that farmers whose names are on the Accredited Milk Producers' Register have frequently been put to considerable expense, and always to a great deal of trouble, in order to provide an article which carries with it a certain guarantee of cleanliness.

The Local Education Authority is taking every opportunity of encouraging the consumption of milk by school children, and it is hoped that, if the habit of drinking milk is acquired during school life, it will be continued after the school age has been passed as, although milk is absolutely necessary for the health of a growing child, it is only a little less important in the case of an adult. It ought to be understood that if the consumption of milk is to be encouraged, the farmers must do their utmost to give a sound, clean article in return. Milk is recognised as one of the ways by which tuberculosis can be spread and, although the advantages to health of milk consumption outweigh the risk of disease which might possibly be conveyed by it, Health Authorities cannot whole-heartedly encourage its consumption unless the producer takes every step to ensure that it is a safe food for the child population. In this connection, therefore, the Local Education Authority has passed the following resolution with regard to the supply of milk in Schools: "That Head Teachers be advised not to enter into a contract with a milkseller unless the milkseller is either a producer of a Graded milk or is on the Accredited Milk Producers' Register."

The general public ought to exercise an intelligent discrimination in their purchase of milk, and should show their appreciation of the progressive attitude of the Accredited Milk Producers, whose only reward is the satisfaction of knowing they are producing a clean milk, by obtaining their supply as far as possible from them, unless, of course, it can be obtained from a producer of one of the Graded milks.

MENTAL DEFICIENCY.

Duties.—The responsibility of making provision for mental defectives does not lie entirely with the Mental Deficiency Committee, as under the Education Act, 1921, it is the duty of the Local Education Authority to make provision in special schools for educable mentally defective children between the ages of 7 and 16 years; and such children come into the category of the merely feeble-minded. The Mental Deficiency Committee, therefore, is responsible for all defectives, whatever the degree of defect, who are not between 7 and 16 years of age, and also for defectives between those ages whose degree of defect is so great that they cannot be educated even in special schools; and such cases are reported to the Mental Deficiency Committee to be dealt with by them.

Ascertainment.—According to the findings of the Wood Committee, a Joint Committee of the Board of Control and Board of Education, it has been estimated that eight per thousand of the population are mental defectives ; and on this basis there should be about 1,950 of such cases in the County, of whom (according to the above Committee) about one-third are believed to be in need of institutional accommodation under the Mental Deficiency Acts.

Ascertainment of mental defectives is considered to have been very thoroughly carried out in this County, and below are given particulars of all cases concerning whom information was available on 31st December, 1932 :—

Reported under Mental Deficiency Acts up to 31st December, 1932.

Age Period.	Moral Defectives.		Feeble-Minded.		Imbeciles.		Idiots.		Totals.	
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
Under 16	..	..	23	16	43	34	7	4	73	54
Between 16 and 40	5	5	326	281	52	52	15	11	398	349
Over 40	..	1	52	79	12	15	3	1	67	96
Age unknown	..	..	31	66	1	0	..	..	32	66
Totals for 1932	5	6	432	442	108	101	25	16	570	565

These cases are dealt with in the following ways :—

	M.	F.	Totals.
In Institutions for Mental Defectives	61	75	136
On Licence out of Institutions	2	2	4
Under Guardianship	2	11	13
In Salop Mental Hospital	51	44	95
Under Supervision by Health Visitors	130	92	222
Ascertained, but not medically examined	258	248	506
In Public Assistance Institutions	65	93	158
In Certified Institutions under order (chargeable to Public Assistance Department)	1	..	1
	<u>570</u>	<u>565</u>	<u>1135</u>

Mentally Defective Children (Educable) under the Education Committee, 31st December, 1932.

	M.	F.	Total.
In Special Schools	10	7	17
Awaiting admission to a Special School	1	2	3
Under supervision of School Nurses	102	64	166
	<u>113</u>	<u>73</u>	<u>186</u>

There are in addition 179 school children, 100 boys and 79 girls, whose mental condition has been called in question, of whom it has been estimated that 50 per cent. will prove to be feeble-minded. It has been calculated, therefore, that there is a total of 275 feeble-minded children under the Local Education Authority.

Provision under the Mental Deficiency Acts.—Mental Defectives can be provided for under the Mental Deficiency Acts in two ways, namely, by accommodating them in institutions, or by placing them under guardianship.

Institutional Accommodation is required for those for whom proper provision cannot be made, or over whom adequate control cannot be exercised, in any other way ; and such defectives do not necessarily by any means belong to the lowest grade of case.

Licence however can be granted to certain defectives who have improved with institutional training, and such defectives are allowed out on trial under the care of a reliable person.

Guardianship is applicable to those who, having been allowed out on licence, have proved themselves capable under supervision of again taking their place in the community. It is also applicable to those who, without having been under institutional care, have shown themselves sufficiently adaptable to enable the necessary control to be exercised in this way without danger to themselves or to others. A great deal could probably be done by guardianship if a sufficient number of suitable guardians could be found who were willing to undertake the responsibilities involved.

Comparative Figures.—According to the *figures of the Board of Control*, which are based on the findings of the Wood Report, there are 666 mental defectives in this County for whom the Mental Deficiency Committee ought to make special provision under the Act. They are grouped as follows :—

				Male.	Female.	Total.
Children under 16	..	..	..	67	45	112
Between 16 and 30	..	..	..	120	148	268
Over 30 years of age	..	..	..	135	151	286
				322	344	666

According to the *information actually available* at the time of writing, the statutory duties of the County Council would be fulfilled by making provision for 432 mental defectives grouped as follows :—

				Male.	Female.	Total.
Children under 16	..	..	..	31	21	52
Between 16 and 30	..	..	..	80	106	186
Over 30 years of age	..	..	..	82	112	194
				193	239	432

The number of mental defectives for whom the County Council has *actually made satisfactory provision* according to the requirements of the Board of Control (*i.e.*, in certified institutions, on licence, or under guardianship) is as follows :—

				Male.	Female.	Total.
Children under 16	..	..	..	16	6	22
Between 16 and 30	..	..	..	38	59	97
Over 30 years of age	..	..	..	10	16	26
				64	81	145

Institutional Accommodation.—The fact that in this County no real provision has been made for mental defectives has added greatly to the difficulties of the work. The only accommodation in the County for mental defectives which has been approved by the Board of Control is in two of the Public Assistance Institutions, namely, Madeley (which is a certified institution for ten male and fifteen female defectives), and Church Stretton (which is certified for five female defectives). All other mental defectives certified under the Mental Deficiency Acts for whom institutional accommodation has been found are in institutions situated in various and often in distant parts of the country ; and, although the Board of Control have sanctioned the use of the Madeley and Church Stretton Institutions for the cases already accommodated there, they have informed the County Council that, in the event of any vacancies arising in one of these Institutions, they will not sanction the sending of any fresh cases.

The Mental Deficiency Committee have had under consideration various schemes for the provision of accommodation for mental defectives in this County, and it is possible that certain Public Assistance Institutions will become available for use by the Committee. Unfortunately such accommodation as these Institutions can provide will only be applicable to certain types of cases, and it is quite certain that, until the Committee can see their way to provide further and more specialised institutional accommodation, the County Council will be unable to carry out their duties under the Mental Deficiency Acts.

It can of course be argued that the provision of accommodation for these cases will be very costly, and will also be very uneconomic. Against this has to be set the fact, however, that they are already a great burden to the country, and that their actual cost to the community is concealed in the returns of various forms of relief. Many of them are in receipt of charity of one kind or another, many are in Public Assistance Institutions, some are "casuals", a certain proportion are potential or actual criminals populating gaols and other houses of correction, and the great majority of them are unemployables. In addition, as a mental defective tends to beget mental defectives, the fact that they are roaming at large without proper care and control is only adding to what is already a social problem of immense magnitude.

MENTAL TREATMENT ACT, 1930.

There are in the County three Authorities under this Act, namely, the County Council, the Borough of Shrewsbury, and the Borough of Wenlock ; and the County Council has placed the responsibility for carrying out the provisions of this Act upon the Mental Deficiency Committee.

The position at present is that the County Council has made arrangements for the admission of *temporary* and *voluntary* patients to the Salop Mental Hospital, but so far no clinics for the treatment of out-patients have been opened. The establishment of at least one centrally-situated clinic would be an important addition to the health services of this County. There is always a certain number of mental cases who are not suitable for admission to a Mental Hospital, and consequently whose requirements at the moment there is no satisfactory means of meeting, and the provision, to begin with, of one clinic, where expert advice on mental diseases was available, would be of great benefit to these patients. In addition, such a clinic would assist in the after-care of patients who had been discharged from the Mental Hospital, and would provide a means by which they could be kept under a certain measure of supervision. It would probably enable a certain number of patients to be discharged from the Mental Hospital at an earlier date, and the clinic would also be very helpful to the Medical Practitioner in general practice as a means whereby a specialist opinion would be available for the poorer class of patient. When a mental case occurs in a household with a small weekly income the services of a consultant are not available ; and it would seem that till a clinic for out-patients is set up it will not be possible to get the advice needed, and so deal with the case according to its requirements.

VENEREAL DISEASE.

Although a great deal of permanent invalidity and ill-health can definitely be attributed to venereal diseases and their complications, until these diseases become notifiable it is impossible to say what is the position with regard to them and to what extent the situation is being met by the facilities which the responsible Authorities provide for obtaining treatment. There is no doubt that untreated venereal disease, or venereal disease in which the treatment has not been completed owing to failure on the part of the patient to attend for treatment until told this is no longer necessary, results in the development of pathological conditions very often not attributed to the primary cause, which shorten the duration of life and have a definite effect on the death-rate, examples of which are certain nervous diseases and certain diseases of the heart. The School Medical Service and Child Welfare Centres are utilised for finding out cases of venereal disease, particularly congenital syphilis, and following them up, and three such cases have been referred for treatment during the year.

Arrangements for Treatment and Diagnosis.—The Venereal Diseases Scheme consists of—

(1) Provision of treatment at :—

(a) The County Council Clinic, Belmont, Shrewsbury.

(b) Wolverhampton and Staffordshire General Hospital.

(c) Arrangements with the surrounding Hospitals.

(d) Arrangements whereby girls can be sent for treatment and training to a Home at Wolverhampton provided by the Lichfield Diocesan Society. The Home also provides treatment for pregnant women suffering from venereal disease.

(2) Arrangements for supplying Salvarsan Substitutes to Medical Practitioners.

(3) Provision of facilities for diagnosis in connection with the Birmingham and Bristol Universities and at the County Clinic.

Number of Cases and Attendances.—There has been no great variation in the number of cases of venereal disease attending for treatment under the County Council scheme during 1932, but there has again been an increase in the number of cases of syphilis, which was 161 as compared with 143 in the previous year. The cases of gonorrhoea, on the other hand, showed a decrease, the number treated being 189 during the year under consideration, as opposed to 203 in the previous year. Particulars of the cases and attendances are as follows :—

Cases of Venereal Disease Treated in 1932.

Shrewsbury Clinic.									Wolverhampton and Staffordshire General Hospital. (Shropshire Patients.)	
			Cases.			Attendances.			*Cases.	Attendances.
			M.	F.	Total.	M.	F.	Total.		
Syphilis	..	..	77	84	161	658	757	1415	3	..
Soft Chancre	..	..	3	2	5	10	6	16	0	..
Gonorrhoea	..	..	137	52	189	1091	314	1405	16	..
Other conditions	..	..	49	42	91	83	86	169	12	..
Total for 1932	..	..	266	180	446	1842	1163	3005	31	910
Total for 1931	..	..	260	174	434	1946	1110	3056	27	854

* These numbers only refer to cases attending for the first time in 1932.

Cleveland House, Wolverhampton.—This Hostel is available for girls and women suffering from venereal disease, who cannot receive proper treatment in their own homes. It has proved most useful, and the work, particularly in the treatment of pregnant women in order to save the infants from disease, is of fundamental importance. During the year 5 cases of gonorrhoea were admitted from the County, all being pregnant women.

Examination of Pathological Specimens.

Nature of Test.	Number of Tests.				
	Shrewsbury Clinic.	Birmingham University	Bristol University.	Wolverhampton and Staff. Gen. Hosp.	Chester Royal Infirmary.
For detection of gonococci	184	35	2	5	4
For detection of spirochetes	..	1	..	1	..
For Wassermann reaction	..	176	236	82	57

BACTERIOLOGICAL DIAGNOSIS OF DISEASE.

Under an arrangement with the County Council, Birmingham University undertakes the examination of specimens sent for the purpose of diagnosis of disease. At the present time, when the question of more adequate provision for cases of infectious disease is being reviewed, the possibility of establishing a bacteriological laboratory in connection with an isolation hospital should also be taken into consideration, as the advantage of a centrally-situated laboratory would be very great from the point of view of increasing the efficiency of the Public Health work in this County. It is always an expensive matter to send specimens for examination to an outside establishment, and such considerations have necessarily limited the amount of work which can be undertaken. This is especially so in connection with the work under the Milk and Dairies Act, as investigations are only undertaken to ascertain the source of tubercle in milk when it has been found to be present by an outside Authority. As Shropshire is a great milk-producing County, this branch of the work could be and ought to be greatly extended.

In addition to the work done in connection with Venereal Disease, referred to on page 55, the following examinations were made :—

Examinations of Bacteriological Specimens by Birmingham University.

	Pos.	Neg.	Total.
Tubercle Bacilli (Sputum)	41	321	362
„ „ (Pleural fluid)	0	2	2
„ „ (Cerebro-spinal fluid)	0	4	4
„ „ (Empyema fluid)	0	1	1
Meningococci (Cerebro-spinal fluid)	1	5	6
Pneumococci „ „ „	1	0	1
Tubercle Meningitis (Cerebro-spinal fluid)	1	0	1
Streptococci (Cerebro-spinal fluid)	1	0	1
„ (Cervical swab)	1	0	1
Diphtheria Bacilli (Secretion from the Throat)	567	2658	3225
Paratyphoid Bacilli (Faeces)	0	15	15
„ „ (Urine)	0	9	9
Typhoid Bacilli (Faeces)	1	20	21
„ „ (Urine)	0	8	8
Blood for Widal's reaction	8	78	86
Dysentery Bacilli (Faeces)	0	3	3
Presence of Animal Parasites (Milk)	0	1	1
Totals for 1932	622	3125	3747
Totals for 1931	1145	3820	4965

BLIND PERSONS ACT, 1920.

The Blind may be considered as falling into three classes—those under 5 years of age, those between 5 and 16, and those over 16 years of age.

Those under 5 years of age come automatically under the supervision of the Health Visitors, who visit them regularly under the Maternity and Child Welfare Scheme. Children between 5 and 16 years of age come under the care of the Elementary Education Authority, who make provision for them by sending them to a Special School for the Blind. As regards those over 16 years of age, the Higher Education Committee arrange for the training of such as are capable of benefiting from special instruction and of learning an occupation which is likely to enable them partly or wholly to support themselves. On completion of training under an arrangement made by the County Council they come under the Home Workers' Scheme of the Birmingham Royal Institution for the Blind, which arranges for their supervision by home teachers and supplies them with materials at cost price, assists them with their work, and helps them to dispose of the articles for which they are unable to find a sale and, in addition, supplements their wages according to their earnings.

Unemployable blind persons, and also those whose needs are not adequately provided for by the methods outlined above, either come under the County Council Scheme for the Domiciliary Relief of the Blind or receive assistance from the Shropshire Association for the Blind.

Domiciliary Relief of the Blind.—All blind persons *under* 50 years of age, and also those over that age in need of greater assistance than a payment of 5/- a week, are dealt with under the County Council Scheme. The expenditure on this service during 1931—32 amounted to £537. Those *over* 50 years of age who are unemployable and whose requirements can be met by a payment of 5/- weekly, receive assistance from the Shropshire Association for the Blind. In this way, overlapping in the matter of giving relief is avoided.

Shropshire Association for the Blind.—This Association, which receives a grant of £878 from the County Council, in addition to making payment to certain of the unemployable blind who are over 50 years of age, exercises a general supervision over the welfare of all blind persons. A Home Teacher has been appointed by the Association, who visits all the blind persons in the County, teaches them Moon and Braille, arranges for them to be supplied with books, and reports to the Secretary of the Association, who draws the attention of the County Council to blind persons who are in need of assistance under one or other of the schemes.

Register of Blind Persons.—A Register of all blind persons, compiled chiefly on information supplied by the Secretary of the Shropshire Association, is kept in the County Health Offices. No name is entered in the Register unless a certificate of blindness within the meaning of the Blind Persons Act has been received from a medical practitioner with special experience in ophthalmology, except in the case of those prevented by age or infirmity from making the journey necessary to undergo this special examination. Such cases are examined by one of the County Council Assistant Medical Officers who, if satisfied of the existence of blindness within the meaning of the Act, gives the necessary certificate. Under this arrangement no difficulty has so far arisen.

Particulars of Blind Persons on the Register of the Blind on 31st March, 1933.—The following are the particulars of the blind persons in the County, as supplied by the Secretary for the Shropshire Association for the Blind, on 31st March, 1933 :—

Age periods.	Male.	Female.	Total.
0—5	0	2	2
5—16	11	1	12
16—21	4	3	7
21—50	53	28	81
50—70	69	46	115
70 and over ..	46	58	104
	183	138	321

The cause of blindness in these cases has not been investigated but, speaking generally, blindness under 5 years of age is either due to ophthalmia neonatorum or to congenital defects. Blindness commencing over 50 years of age is to a large extent due to degenerative causes such as cataract, whereas in the intermediate ages a considerable proportion of the blindness has probably been due to accident. The excess of blindness in males over females between the ages of 21 and 50 (males 53, females 28) is strong evidence of this.

The following statement is from the report of the Shropshire Association for the Blind for the year ended March 31st, 1933 :—

No. on Register, 31/3/32	..	..	..	..	..	331
Added during the year :—Discovered	..	..	..	..	34	
Came to Salop	..	..	..	..	1	
					—	35
Being trained and at school	..	..	..	..	..	18
Home Workers	..	..	..	..	..	21
Old Age Pensions secured for	..	..	..	..	..	10
Number of weekly grants awarded	..	..	..	..	..	78
Patients taken to Hospital	..	..	..	..	..	49
Deaths	..	..	..	..	..	33
Transferred	..	..	..	..	..	4
Taken off Register	..	..	..	..	..	8
Total on Register 31st March, 1933	..	..	..	..	..	321

The Ministry of Health now require a County Council Officer to supervise the work carried out on behalf of the blind by voluntary associations and, as such an official would require to be familiar with the technical details of the work in order to carry out the supervision in an efficient manner, the Salop County Council is in consultation with other Authorities whereby a combined appointment may be made to secure a person who would be responsible for the supervision of the work in a large combined area.

Certification of Blindness and the Ascertainment of its Causes.—Towards the end of 1930 the Union of Counties Association for the Blind set up a Standing Committee to consider the problems of the prevention of blindness. At the very commencement of its work the Committee found itself handicapped by an absence of scientific data relating to the prevalence of defects causing blindness and of the underlying causes of these particular defects. The Committee considers this lack of data attributable to the fact that, in the matter of certification of the blind, there is no uniformity in the methods of the various Authorities in compiling the Register of blind persons and in the form of certificate which is required before a name can be entered on the Register. This sometimes gives rise to certain anomalies of which the following may be quoted as an example. All blind persons over the age of fifty are entitled to an old age pension, but it sometimes happens that a person is accepted by the Pensions Authority who is refused registration by the Local Authority under the Act, and *vice versa*.

The Committee therefore recommends :—

- (1) That no person shall be entered on the Blind Register until he has been examined and certified to be blind within the meaning of the Act by a "Certifying Ophthalmic Surgeon," by which is meant a Medical Practitioner with special experience in ophthalmology.
- (2) That the Local Authority should revise existing registers in accordance with the requirements of this recommendation in all cases in which there is any doubt, and in those cases in which some new benefit is given.
- (3) That the Local Authority shall appoint for the purpose of certification, surgeons with special experience in ophthalmology, and shall arrange that persons who cannot attend for examination shall be visited by the certifying ophthalmic surgeon.
- (4) That every certificate given by the ophthalmic surgeon shall be made out on a form prescribed by the Minister of Health.
- (5) That the Pension Officer should be required to appeal against the grant of Pensions to persons who have not been certified in this manner on the prescribed form.

- (6) That the Board of Education should require the Local Education Authority to adopt the same procedure as regards certification in connection with the education of blind children and the training of blind students, either by appointing a special Officer or by making use of the arrangements which it is proposed should be set up under the Blind Persons Act.
- (7) That each certificate of blindness shall be accompanied by a report drawing a distinction between the ascertained condition of each eye and the cause of such condition, in order to permit of classification of the causes of blindness, and of the study of the problems of its prevention.

FOOD AND DRUGS ACTS.

By arrangement with the Chief Constable for Shropshire, samples of food and drugs are taken by the County Police under the above Acts, and are sent to the County Analyst for examination. Particulars of the results and of any action taken as a consequence are given below.

Return of Samples taken for Analysis during the Year 1932.

Nature of Sample.	Number taken.	Genuine.	Adulterated.	Remarks.
Milk	160	151	9	5 Cautioned. 2 persons fined—one for three offences. (1) £1 and £1 14s. 11d. Spl. Costs (2) (i) £1 and £4 15s. 10d. Spl. Costs, (ii) £1 and 10/6 Spl. Costs, and (iii) £1 and 10/6 Spl. Costs.
Potted Meat ..	2	2	..	
Oatmeal	5	5	..	
Butter	9	9	..	
Pepper	1	1	..	
Ox Tongue ..	1	1	..	
Lard	4	4	..	
Rice	9	9	..	
Brawn	4	4	..	
Sausage	7	7	..	
Jam	9	9	..	
Flour	2	2	..	
Malt Vinegar ..	2	2	..	
Vinegar	4	4	..	
Rum	2	2	..	
Peas	1	1	..	
Whiskey	2	2	..	
Cider	2	2	..	
Margarine ..	2	2	..	
TOTAL ..	228	219	9	

EDUCATION IN HEALTH.

Although education in matters pertaining to health is of the utmost importance, pressure of other duties is the great limiting factor in health propaganda work. During the year, 87 lectures were given in schools at the close of medical inspections by the Assistant School Medical Officers. In the Child Welfare Centres 311 were given by the Medical Officers and Health Visitors in attendance. The Inspector of Midwives, who also holds the position of County Health Lecturer, gave 21 lectures at various Women's Institutes and other centres; three lectures were given by the Tuberculosis Medical Officers and twenty-three lectures were also given under the auspices of the Shropshire Branch of the Midwives Institute.

Health Campaign.—An anti-venereal disease campaign, organised by the British Social Hygiene Council took place in *Shrewsbury, Wellington, Market Drayton* and *Ludlow*, from 28th November to 1st December. Two lectures, illustrated by film displays, were given each day to large audiences. The films shown were, "*Deferred Payment*," and "*John Smith & Son*," to mixed audiences, and "*V.D. Cash Register*" to men only.

Health Week in Oswestry.—A very successful Health Week took place at Oswestry in connection with the Urban and Rural District Councils. The services of the Central Council of Health Education were obtained for the organisation of a Health Exhibition on a considerably more elaborate scale than had previously been attempted in Oswestry. Arrangements were made for parties of children to visit the Exhibition during the mornings and afternoons, and over 2,000 children attended. A film, entitled "*The Mystery of Life*" was shown to a large audience at the Playhouse, the older children from the schools attending.

In addition to lectures given in Oswestry, lectures were given in Weston Rhyn, Whittington, Ruyton-xi-Towns, Frankton, Morda, St. Martin's, Gobowen, Trefonen, and Kinnerley.

Meat Inspection Lectures.—A course of ten lectures with demonstrations were given on the principles and practice of Meat Inspection. The lecturer was Mr. T. Speake, Chief Sanitary Inspector, and the demonstrator, Mr. F. Farrell, Abattoir Superintendent and Meat Inspector, both of the Borough of Shrewsbury. The average attendance was 12. The Inspectors showed keen interest throughout, and the course was highly appreciated.

AMBULANCES.

Two motor ambulances are owned by the County Council, one by the Public Health Committee and stationed at a garage in Shrewsbury; the other by the Public Assistance Committee and kept at Berrington Hospital. The Public Health Ambulance is generally available for patients being removed to or from any house or hospital in Shropshire, and is utilised both for infectious and ordinary cases. It was used on 365 occasions, and covered a distance of 7,815 miles. Whenever the ambulance is used for an infectious case, the Sanitary Inspector of the District is responsible for taking the necessary steps for its disinfection afterwards.

The Public Assistance Ambulance is utilised almost entirely for the purposes of Berrington Hospital.

Other ambulances are owned by Bridgnorth Borough, Ludlow Borough, Wellington Urban, and Market Drayton Urban Councils, Oswestry and Chirk Joint Hospital Board, Ellesmere Cottage Hospital, Oswestry and Whitchurch Local Voluntary Aid Detachments, and Oakengates Ambulance Committee. There are in addition horse ambulances at Market Drayton, Newport and Shifnal.

RIVER POLLUTION.

Although a comparatively small area of the north-eastern part of the County drains into the River Dee, the chief concern of the County Council in connection with Rivers Pollution Prevention is the River Severn. While there is no serious gross pollution of the River in view of the volume of water which flows down it, the effect of a certain number of trade effluents will have to be carefully watched and investigated. Certain minor tributaries of the Severn show at parts rather gross pollution but, although these will have to be dealt with, they do not seriously affect the purity of the main river.

Severn Survey.—In accordance with the arrangements made by the Ministry of Agriculture and Fisheries, with those County Councils and County Borough Councils through whose administrative areas the River Severn flows from its source, with the object of securing a complete survey of the river on one particular date, and thereby obtaining a picture of the condition of the river as a whole, Dr. Weston, Deputy County Medical Officer of Health, took six samples at different points between Shrewsbury and Coalport. Four samples indicated a high condition of oxygenation of the water, but two showed a condition of the river in which this was very low and, therefore, unsatisfactory. The first of these was taken below the outfall of the Shrewsbury sewage effluent, and the other below the district of Ironbridge, Jackfield and Coalport, where there is considerable contamination by crude sewage.

Shropshire Beet Sugar Factory.—Observation was kept on the effect of the effluent from the Allscott Beet Sugar Factory during the winter of 1932—33, and samples of water were taken once a month from the River Tern, the first samples being obtained just before the commencement of the seasonal activities of the Factory. Two points were selected for sampling, one just above the place at which the effluent entered the stream, and the second about a quarter of a mile below it. The sample taken above the outfall served the purpose of a control and as a standard of comparison with the sample obtained below the outfall.

It was found on analysis by the County Analyst that the two samples were generally very similar, although occasionally there was an increase in the solid matter in solution in the second sample.

Dr. Harris, in his Annual Report to the Ellesmere Rural District, states :—“ Ellesmere Urban District Council and Ellesmere College have installed efficient sewage disposal works, thereby greatly reducing the pollution of Tetchill Brook. A certain amount of pollution of this stream still exists due to the effluent from Ellesmere Milk Factory. This matter is, however, receiving the earnest attention of the Directors of United Dairies Limited.”

HOUSING.

The recent withdrawal of grants under the Housing (Financial Provisions) Act, 1924, practically limits housing activities to what can be done under the Housing Act, 1930, and the Housing (Rural Workers) Act, 1926 ; or, in other words, to the re-housing of families displaced from insanitary areas, and to the re-conditioning of houses, if found suitable, for members of the agricultural population in rural districts.

The Housing Act, 1930, has placed definite duties on the County Councils in connection with housing. The provisions of the Act which are of chief interest to the Public Health Committee are contained in Part IV, which deals with houses in Rural Districts. The County Council are required to have constant regard to the housing conditions of the people of the working classes in Rural Districts, and of the sufficiency of the steps which the Rural District Councils are taking, to remedy unsatisfactory housing conditions.

In order to carry out the provisions of this part of the Act the County Council ought to have a complete survey made of housing conditions in Rural Districts, noting specially the question of overcrowding, the relationship of the number of inhabited houses to the population of the district, the condition of repair in which the houses are maintained, and the degree to which the ordinary sanitary requirements are being met to make the houses fit for human habitation. Complete and accurate information is not available concerning these matters and, although Rural District Councils are required under this Act to furnish from time to time, but not oftener than once a year, such reasonable information as the County Council consider necessary, there is good reason to believe that this information could not at present be obtained for the County as a whole. Till the appointment of a County Sanitary Inspector, who would deal with housing and other matters, it is difficult to see how a housing survey can be carried out and how complete information on this important matter can be obtained. Accurate and full information is therefore not available with regard to housing conditions in the County, but extracts from the reports of the District Medical Officers of Health referring to this matter are given below.

Housing (Rural Workers) Act, 1926.—The administration of this Act has been delegated in this County to the Rural District Councils. In all probability, while there is urgent need for new houses, there is even a greater need for the carrying out of repairs in order to make houses already occupied fit for human habitation, and for this purpose the Rural District Councils have been urged by the County Council to take full advantage of the provisions of the Act. Under this Act a great deal can be done to improve the housing conditions of agricultural workers in their areas ; and it may be pointed out here that it is more economical to improve housing conditions in suitable instances than to undertake the construction of new houses.

Housing (Rural Authorities) Act, 1931.—Under this Act the Minister of Health is authorised to make grants for a period of forty years, in addition to the grants received under other Housing Acts, to those Rural District Councils whose financial resources are insufficient to enable them to provide houses in agricultural parishes for agricultural workers and persons of substantially the same economic conditions. Particulars of the applications and of the number of houses in respect of which the Minister undertook to make the grant were given in the Annual Report for last year.

The following are the more important matters referred to in the Reports of the District Medical Officers of Health :—

Burford Rural.—“ I believe that twenty houses spread over the four parishes would be readily let, providing the rents were similar to the rents prevailing in the area for such houses.”

Cleobury Mortimer Rural.—“ *Highley* is the only parish in the district in which there was an increase in the population during the intercensal period 1921—31, and it still maintains, along with *Coreley*, the position of being the place where overcrowding is most prevalent. *Loughton* and *Farlow* are also very close behind in this respect.”

“ Private enterprise may meet the requirements at *Highley*, but at *Coreley* and *Farlow* the Housing Act of 1930 should be put into operation, and the subsidy per person provided for secured, to enable the houses to be let at rents the Quarrymen can afford to pay. The Quarry Company recently asked for the provision of fifty houses for their workmen. This closely coincides with the estimate formed by a recent survey of the houses on the Clee Hill due to overcrowding and unfit condition.”

Clun Rural.—"The Council's further programme, for the present year, is for 12 houses for which, after protracted negotiations as to sites, in one case involving a period of over 3 years, tenders can now be invited. These houses will be built :—at *Lydbury North*, 6 ; *More*, 4 ; and *Clungunford*. 2."

Ellesmere Rural.—"The survey commenced in 1931 and proceeded with in 1932 showed that, owing to unfit houses, overcrowding, and to meet the normal expansion of population, there was a need for 30 houses for people of the working class.

"Considerable delay was caused from different sources, and although the Council made every effort to get building commenced they were unsuccessful in their efforts at the end of the year. There is every reason to believe that the 30 houses will be completed in 1933."

Newport Rural.—"The success of the Council's Housing Schemes in 1931 should encourage them to provide another instalment. The Housing Act, 1930, offers a subsidy in a manner that is particularly suitable to an industrial area like *Donnington Wood*, where numerous houses exist that are acknowledged by their owners to be unfit, and where overcrowding due to the size of the family is very common, as well as from the absence of adequate bedroom accommodation, whilst there is no doubt a good deal of unemployment in the area, there are also many miners whose work is good, who would be able to meet the rent of the house with the aid of the subsidy."

Shifnal Rural.—"Further houses are required at *Shifnal* to replace a number that are unfit for habitation, and at *Albrighton* the demand was considerably in excess of the number erected. There is a prospect of private enterprise building a number for sale, but this will not help the agricultural worker, and some more may be required for this purpose and should be undertaken by the Council.

"There is considerable evidence that the diminishing population in rural districts is due to the shortage of cottages and the lack of building. Where a vigorous Housing policy is pursued, the population is maintained or increased. There are several parishes in the Shifnal district where the need for cottages is apparent."

Wellington Rural.—"The standard of housing in the district has been substantially raised by the Schemes carried out by the Council, but the needs of the industrial area and certain rural parishes have not yet been entirely met. Four further sites have been acquired for building purposes, and land is being negotiated for at *Ketley*."

Dawley Urban.—"The question of building houses at *Malinslee* on land purchased by the Council some time ago, was under consideration, and directions were given to the Surveyor to prepare plans of a type that would enable the houses to be let at as low a rent as possible. The prevailing rents in that area being very low, it is hoped that this scheme will be utilised, under the Housing Act, 1930, to clear away some of the poorest cottages.

"The success of the previous schemes at *Dawley*, where the Collector states there are no arrears of rent, should encourage the Council to build further houses, to enable them to close some of the worn-out houses, which are so numerous in the district."

Ludlow Urban.—"The steady application of the Housing Act, 1930, is necessary to raise the standard of housing of the lower paid artizan class in the Borough. The Government subsidy and the Council's contribution will enable houses to be erected and let at rent suitable to their wages, and will enable a number of the old and dilapidated houses to be cleared."

"A five year plan for the building of six or more houses each year should, I consider, be put forward, and certain blocks of houses scheduled as improvement areas."

Newport Urban.—"The recent increase in the population, approximately four hundred, revealed by the Census returns, is, I believe, entirely due to the Council's housing policy of continuing to build as long as there is a demand from suitable tenants, and I think it can be continued with advantage to the town. On the other hand some steps are necessary to improve the housing conditions of the people, who cannot afford the rent of the existing Council houses. The Housing Act of 1930 was designed to meet this position, and a scheme for building thirty houses on the five-years plan to replace unfit and worn-out dwellings and the improvement of the condition and arrangement of a number of others, with the financial assistance made available by the Act, would, I consider, meet the immediate requirement of the town in regard to housing."

Oakengates Urban.—"During the year I examined about one hundred houses with a view to action being taken under the Housing Act, 1930, and scheduled as clearance areas. I reported on thirty-seven houses which are unfit and beyond repair. I estimate that twenty houses will be required each year for five years to clear the existing unfit houses in the area. There exists a long list of applicants for Council Houses, whose present accommodation is quite insanitary, either from damp or overcrowding, this will be in addition to those required to replace the houses cleared."

Shrewsbury Borough.—"A start on the five-year building programme which aimed at the ultimate provision of 500 new houses was made by the erection of a first instalment of 100 houses at Judith Butts for ordinary housing needs."

"Towards the end of the year a commencement was made in building 12 houses at Gwyn Close for slum clearance re-housing."

"Owing to a change of Government policy, this five-year programme cannot now be further proceeded with except in relation to slum clearance, and this change of policy, whatever its merits or otherwise may be, is unfortunate for Shrewsbury for the reason that our ordinary housing needs are greater in quantity than our slum clearance needs."

Wellington Urban.—"As a result of an Inquiry held on March 20th, 1932, the Minister of Health gave sanction to the Council's proposals to declare a group of 19 houses, including two Courts, a Clearance Area, and the Council proceeded to erect further houses, 12 of which will be utilised for the accommodation of displaced tenants from the Clearance Area, with the assistance of the subsidy under the Housing Act, 1930."

"If a similar number can be provided each year under the five-years' plan of the Ministry, it would be sufficient to enable a clearance to be made of all the worn-out and insanitary dwellings in the district at the present time."

Wem Urban.—"The Council has erected 52 houses with State assistance under various Housing Acts, and in the period during the erection of these houses, none have been erected by private enterprise. There is a fairly long list of waiting applicants, and it seems that if the Council does not erect more houses the demand will not be met."

Wenlock Urban.—"With 8 new houses built during the year by the Council in the *Broseley Ward*, the total number of houses built and owned by the Council is now 187, a notable contribution to better housing, but there remains still a considerable 'waiting list' of candidates for houses. A class of house to let at 5/- per week inclusive of rates, in large numbers, if it were economically possible, would go very far to solve the housing problem in the Borough."

Whitchurch Urban.—"New Building :—

Total number of houses built during 1932	..	..	..	..	..	..	90
By the Local Authority with State assistance	..	..	..	..	..	..	82
By other bodies or persons with State assistance	..	..	..	..	..	..	8
Total number of houses owned by the Local Authority at end of 1932	..	..	..	..	..	..	230

"The Council may certainly be congratulated on its forward housing policy, in which full advantage has been taken of assistance, while offered by the Housing Acts."

WATER.

The following are the more important matters referred to in the Reports of the District Medical Officers of Health :—

Atcham Rural.—The public supply and the private village supplies (of which the district has a considerable number), were efficiently maintained, and no complaints as to quantity or quality were received.

Burford Rural.—“ The amalgamation of the district with Ludlow and Cleobury Mortimer Rural will enable one scheme to deal with the water problem in each of these areas on the most economical lines.”

Church Stretton Rural.—“ No action has been taken with regard to recommendations made in previous reports concerning the supply of *Cardington Village*, and the repairing of the public well at *Soudley*.”

Cleobury Mortimer Rural.—“ The water supply at *Studley Cottages, Coreley*, was investigated owing to the prevalence of a large number of septic throats. The tenants take their water from an open stream, which runs over the common, and is the overflow from a number of springs, instead of carrying from the nearest well, about half a mile away. There is no doubt that the water gets contaminated before reaching Studley, and that the wells are an unreasonable distance away and difficult of access.

“ The question of whether it would be possible to collect the water and carry it to stand-pipes near to these and other users should, I consider, be carefully gone into. There is an adequate supply and the quality is satisfactory.”

Clun Rural.—*Kempton.*—“ Tests were made during the year and it was found that the springs suggested for a gravitation supply were inadequate for the village.”

“ The Council has the question under adjourned consideration, and I would suggest that investigations should be made as to the best site for sinking a trial bore, and ascertaining whether an adequate supply could be so obtained.”

The Cabin, Hopesay.—“ The defective supply to this small group of cottages has previously been reported on. A scheme for providing a filtered stream supply is now being considered.”

Drayton Rural.—“ *Cheswardine—Extension to Soudley.*—The following is a result of 15 months test as to the supply available :—

Yield of springs per day (during Test)	..	..	..	..	34,000 gallons.
Pumped by ram	..	..	..	..	18,000
Running to waste at ram	..	..	..	..	16,000

Woore.—“ The proposal of supply to the village of Woore from the Nantwich Rural District Water Scheme is under consideration. The bore and reservoir are both in the parish of Woore.”

Hodnet.—“ Plans have been prepared and proposals submitted and these are under consideration by the Council.”

Ellesmere Rural.—"Some degree of progress has been made in improving the water supply to houses, but there is still scope for improvement, especially to *Harmer Hill* and *Valeswood*, where some of the inhabitants have to carry water for about a mile. On account of the economic depression, the Council decided to defer consideration of a suitable water supply to those two areas until 1933. It is very desirable that they should give it re-consideration early in 1933."

"Nothing has been done with regard to the water supply to *Harmer Hill School*, the Ellesmere Rural District Council having deferred for one year the consideration of a scheme to supply the whole village with a sufficient water supply."

Ludlow Rural.—"Mr. Graham made further investigations of the existing wells with a view to the supply of the higher levels of the *Clee Hill*, by means of a pumping scheme. His report to the Council is receiving consideration. When the Boundaries question is finally settled, it should be possible to devise a scheme to meet the needs of the area."

Oswestry Rural.—"Maesbury.—In my last report I drew attention to the bad conditions in this area. A sufficient and wholesome water supply for this village is a matter of considerable urgency. The present supply is not only very inadequate, but of doubtful purity. About half the houses have no supply of their own and in many cases water has to be carried long distances. There are many dip wells, openly exposed to contamination, and most of the other wells are shallow and unsatisfactory, as shown by analysis of samples taken during the year."

"The development of the scheme for the building of a larger reservoir on Sweeney Mountain would make available a plentiful and excellent supply of water for this area, and would be work which should be of great value to the health of this village."

Other Areas.—"Quite a number of people obtain their water supplies from streams and brooks which can by no means be looked upon as free from pollution."

"In considering an improvement in the water supply of the district the question of doing away with means of supply which must be a constant danger to the users should receive serious consideration."

Shifnal Rural.—"The decision was taken by the Council to supply the parish of *Sutton Maddock* with water from the Harrington Wells belonging to the Borough of Wenlock, and the Inquiry was held on July 28th, 1932, by the Ministry for sanction to borrow £1,000 for the necessary mains, and other works. The scheme will include the village of *Brockton*, where the supply has been the cause of complaint for some years."

"The supply to *Albrighton* from Cosford showed considerable improvement during the year, the quality and appearance being uniformly good."

"Fifteen hundred yards of 1-inch main was laid to connect *Bloomsbury* with the Hilton Bank water works at Sheriffhales."

Teme Rural.—"Bucknell is still without a satisfactory supply of water. I made a special report on this matter as long ago as 1904 and nothing has been done—the position is now much worse than it was then, several of the wells having failed altogether. In the *Kinsley district of Stowe* 16 houses get their water from wells so near to cesspits as to make the water unsafe for domestic use."

Wellington Rural.—" Good progress was made with the new supply to *Bratton, Admaston* and *Wrockwardine* from the Urban District rising main, as it passes through the district from Longswood. The water should be available in the present year. Steps should be taken to supply *Arleston* from the same source and, if possible, *New Works*"

Wem Rural.—" A 500-gallon rain water tank has been provided by the owners to each house on *Weston Heath* and arrangements made with Lady Stanier for supply for domestic purposes."

Bishop's Castle Urban.—The water had to be cut off on two occasions during the year. In one instance this was due to drought, and in the second instance the shortage appeared to be due to temporary chokage by vegetation and grit at the reservoir outlet.

" The Council are at present closely considering a report by the Surveyor and the adoption of improvements to sections of the long gravitation main, so as to ensure the maximum possible delivery of water from the upland reservoir to the town."

Ludlow Urban.—" An agreement was come to with the Birmingham Corporation for a supply of water to be taken from the Birmingham main on a minimum payment of a sum of £25 quarterly at one shilling per 1,000 gallons. It is estimated that the 500,000 gallons will be required in at least two quarters of the year and that in the others there will be a saving in the cost of pumping which will cover the amount payable."

Oakengates Urban.—" It is to be hoped that in the near future it will be found possible to carry out the suggestion of the consulting Engineers and provide additional storage reservoir at *Red Hill*."

Shrewsbury Borough.—" It was mentioned in the report for 1931 that the Council had under consideration a scheme for a new water supply. This scheme, the estimated cost of which is £102,253, was finally approved by the Town Council and the Ministry of Health during the year, and work on the scheme actually commenced in November, 1932. It is expected that it will take two years to complete."

Wellington Urban.—" During the year the work at the new Water Undertaking at Longswood made considerable progress. The laying of the new rising main from Longs Wood to the Reservoir and the construction of the new concrete Reservoir at the Ercall were commenced, and should be completed in a few months' time. The rapidly increasing demand for water due to municipal and private building at present being projected will be adequately met by the new wells, and a better pressure secured at the higher levels in the town."

Whitchurch Urban.—" Extensions of mains during the year comprised a 3-inch main of 713 yards from *Sedgford* to the *Mossfields Estate*, which has been acquired by the County Council as the site for a new Secondary School, and an extension of 135 yards of 3-inch main on the Council's *Wayland Road Housing Site*."

SEWERAGE AND DRAINAGE.

The following are the more important matters referred to in the Reports of the District Medical Officers of Health :—

Atcham Rural.—The twenty-eight houses on the Council's Estate at *Shelton Gardens* were connected to the sewers of the Borough of Shrewsbury during the year, and the old outfall works were abolished.

Drayton Rural.—“ The village of *Cheswardine* is properly drained and sewered with an efficient disposal instalment. The completed scheme has now been in operation twelve months.”

Pipe Gate and Marchamley Housing Sites.—“ 107 yards of 6-inch pipes have been laid to deal with 8 houses at Pipe Gate and 100 yards of 4-inch and 120 yards of 6-inch pipes have been laid to deal with the housing site at Marchamley, where a water supply is laid on.”

Newport Rural.—“ Several complaints were received in regard to the nuisance caused by the streams and open channels which take the drainage from groups of houses at *Donnington Wood*, and the main outlet was thoroughly cleansed for the whole length. The open channels, which receive only the drainage from the houses, should, I consider, be piped in for some distance away from houses.”

Oswestry Rural.—“ Although recognising that some parts of the district will be improved by some better method of dealing with sewage than that which at present exists, your Council has decided to postpone the development of a comprehensive scheme of sewerage for the present.

“ But in the postponement of a sewage scheme certain measures should be taken to improve present conditions. The most important being :—

“ (1) (a) Measures to deal with the sewerage of the houses on the *Morda* and *Coedygoe Road* ; (b) an improvement in the present method of dealing with slop water, etc., from these houses.

“ (2) A scheme for dealing with sewerage of the school.

“ (3) Improved arrangements for the Isolation Hospital.”

Wellington Rural.—“ Very considerable progress was made at *Hadley* in the clearance of earth-closets, fifty being dealt with during the year and large improvements made in drainage.

“ The absence of a sewer still holds up any development in Ketley, either by private enterprise or housing improvement schemes by the Council. It is a matter that should receive early consideration.”

Church Stretton Urban.—“ In the case of these outfall works the volume of sewage to be treated is large for the area of treatment available, and has naturally increased since the works were installed, and the Council would be well advised in my opinion to consider if modification of the system of treatment, or extension of irrigation area, is practicable.”

Dawley Urban.—“ The industrial position in the area made it necessary to defer any consideration of Messrs. Wilcox and Raikes' plans for outfall works and new sewers, till a later date.”

“ It is to be hoped that it will be found possible to carry out the scheme for new sewers and sewage disposal works in the near future, as this will make possible further sanitary improvements and encourage building.”

Ellesmere Urban.—" During the year the new scheme of sewerage and sewage disposal has been completed, the works being in operation, but at the end of the year still under the maintenance period.

" The works are in two parts, a receiving and pumping station and a disposal station. At the receiving station there are two detritus tanks and two storm overflow tanks and an engine house. At the disposal station there is the receiving chamber, two sedimentation tanks, siphon dosing chamber, two filter beds, two humus tanks and four sludge lagoons. The effluent from the works discharges into the Tetchill Brook, and is a very good effluent, being very favourably reported on after analysis by the County Analyst. These works serve the greater part of the area.

" Another works on a much smaller scale, consisting of a crude sewage receiving chamber, a sedimentation tank, a dosing chamber with a siphon, and one filter bed, serves Elson district, Cambria Avenue, Trimpley and upper end of Scotland Street."

Market Drayton Urban.—" The scheme for sewerage and sewage disposal was completed last year, and house drains are being connected to the new sewers."

Newport Urban.—" Only one privy was converted into a water closet during the year. The local bench refused to make orders for the conversion of nine others. Under the circumstance the obvious duty of the Council is to proceed under the Public Health Acts Amendment Act, 1927, and apply for a loan and convert all that remain in the district."

Oswestry Urban.—" For some years efforts have been made to have the last remaining houses (6) within reasonable distance of the sewer which are without closet accommodation connected to the sewer. Special arrangements have to be made for the removal of the closet contents.

" This has been unduly held up owing to the failure to provide a satisfactory water supply. It is time that this matter was finally settled so that a blot on the sanitary arrangements of the Borough may be removed."

Whitchurch Urban.—" The Surveyor reports that a 9-inch sewer extension, 585 yards in length, to the Mossfields Estate was completed in March."

TABLE II.

CAUSES OF DEATH AT DIFFERENT PERIODS OF LIFE IN THE ADMINISTRATIVE COUNTY OF SALOP, 1932.

			AGGREGATE OF URBAN DISTRICTS.												AGGREGATE OF RURAL DISTRICTS.											
CAUSES OF DEATH.		Sex.	All Ages.	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—	All Ages.	0—	1—	2—	5—	15—	25—	35—	45—	55—	65—	75—
ALL CAUSES		M. 791 F. 751	51 43	5 8	7 9	11 13	16 25	33 36	32 34	83 55	134 109	198 175	221 244	806 872	57 79	13 7	10 7	14 14	22 22	29 28	35 35	55 66	120 112	222 177	229 325	
1	Typhoid and paratyphoid fevers	M. . F. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	1 .	. .	. .	. .	. .	. .	. .	. .	1 .	. .	. .	. .	
2	Measles	M. 1 F. .	. .	1 .	. .	. .	. .	. .	. .	. .	. .	. .	. .	3 .	1 .	1 .	1 .	. .	. .	. .	. .	. .	. .	. .	. .	
3	Scarlet Fever	M. . F. 1	. .	. .	. 1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	
4	Whooping Cough	M. 4 F. 8	1 3	3 2	. .	. .	. .	. .	. .	. .	. .	. .	. .	7 4	2 3	2 1	3 .	. .	. .	. .	. .	. .	. .	. .	. .	
5	Diphtheria	M. 3 F. 4	. .	. .	2 2	1 2	. .	. .	. .	. .	. .	. .	. .	1 1	. .	. .	. .	1 .	. .	. .	. .	. .	. .	. .	. .	
6	Influenza	M. 45 F. 51	3 1	. .	1 .	1 2	. .	2 2	2 2	3 5	7 13	9 12	17 14	38 59	2 2	1 .	2 .	. .	4 1	1 3	3 6	. .	3 6	10 9	12 27	
7	Encephalitis lethargica	M. 2 F. 1	. .	. .	. .	. .	. .	1 .	. .	. .	. .	1 .	. .	1 3	. .	. .	. .	. .	. .	. 2	. .	. .	. .	. .	. .	
8	Cerebro-spinal Fever	M. 2 F. 1	. .	1 .	. .	1 .	. .	. .	. .	. .	. 1	. .	. .	1 .	1 .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	
9	Tuberculosis of respiratory system	M. 41 F. 36	. .	. .	. .	. .	7 13	8 11	7 7	13 3	5 2	1 .	. .	18 31	. .	. .	. .	. .	. .	3 7	4 4	3 12	4 2	1 1	. .	
10	Other tuberculous diseases	M. 8 F. 7	1 .	. .	. .	. .	. 2	3 3	1 1	1 .	2 .	. 1	. .	10 9	1 1	2 2	. .	. .	. .	. .	. .	1 .	. .	. .	1 .	
11	Syphilis	M. 3 F. 2	1 1	. .	. .	. 1	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	
12	General paralysis of the insane, tabes dorsalis	M. 3 F. 2	. .	. .	. .	. .	. .	. .	. .	1 1	1 .	. 1	. .	2 2	. .	. .	. .	. .	. .	. .	. .	. .	. .	1 1	. .	
13	Cancer, malignant disease	M. 109 F. 88	. .	. .	. 1	. .	1 1	1 2	3 4	15 13	38 24	36 23	15 20	92 104	. .	. .	. .	. .	. .	. .	. .	4 5	8 14	28 32	37 30	
14	Diabetes	M. 8 F. 13	. .	. .	. .	. .	. .	. .	. .	2 .	4 2	2 6	. .	7 14	. .	. .	. .	. .	. .	1 1	. .	2 .	. 2	6 2	2 2	
15	Cerebral Haemorrhage, etc.	M. 52 F. 60	. .	. .	. .	. .	. .	. .	. .	4 2	9 12	20 17	19 29	47 63	. .	. .	. .	. .	. .	. .	. .	. .	1 6	11 14	15 20	
16	Heart disease	M. 172 F. 151	. .	. .	. .	1 1	1 1	4 2	2 2	11 5	25 22	60 48	68 70	170 191	. .	. .	. .	. .	. .	1 .	2 .	5 2	8 9	28 22	60 56	
17	Aneurysm	M. 3 F. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2 .	1 .	4 1	. .	. .	. .	. .	. .	. .	. .	. .	3 .	1 .	. 1	
18	Other circulatory diseases	M. 41 F. 37	. .	. .	. .	. .	. .	. .	. .	. .	5 3	17 15	19 19	59 40	. .	. .	. .	. .	. .	. .	. .	. .	1 5	7 10	29 24	
19	Bronchitis	M. 31 F. 37	2 3	. .	. .	1 1	. .	. .	. .	2 1	3 3	6 14	17 15	31 42	1 4	1 .	1 .	. .	. .	. .	. .	. .	1 2	8 8	17 28	
20	Pneumonia (all forms)	M. 15 F. 38	6 6	2 .	. 2	. .	. .	1 3	2 5	2 5	2 3	1 6	1 42	40 42	5 10	3 3	1 1	. .	. .	. 2	1 2	5 6	10 5	6 6	6 6	
21	Other respiratory diseases	M. 3 F. 4	. .	. .	. .	. 1	. 1	1 1	. .	1 .	. .	. .	1 .	6 5	1 .	. .	. .	. 1	. .	. .	. .	. .	1 .	2 1	1 2	
22	Peptic ulcer	M. 5 F. 2	. .	. .	. .	. .	. .	. .	. .	3 2	. .	2 .	. .	8 1	. .	. .	. .	. .	. .	. .	. .	. .	2 3	1 .	. .	
23	Diarrhoea, etc.	M. 6 F. 2	1 2	. 2	. .	. .	. .	. .	. .	. .	1 .	. .	. .	5 7	2 1	. 2	. .	. .	. .	. .	. .	. .	1 .	1 .	. .	
24	Appendicitis	M. 3 F. 5	. .	. .	. .	. 2	. .	. .	. .	1 2	. .	. .	. .	3 5	. .	. .	. .	. 1	. .	. 2	. .	. .	1 .	1 .	. .	
25	Cirrhosis of Liver	M. 2 F. 1	. .	. .	. .	. .	. .	. .	. .	. .	2 1	. .	. .	2 .	. .	. .	. .	. .	. .	. .	. .	. .	1 .	1 .	. .	
26	Other diseases of liver, etc.	M. 1 F. 3	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	2 6	. .	. .	. .	. .	. .	. .	. .	. .	. .	1 3	1 .	
27	Other digestive diseases	M. 18 F. 21	3 1	. .	. .	2 4	. 3	. 1	3 1	2 2	1 2	5 3	2 4	19 18	3 1	. .	. .	. 1	3 4	. .	. .	. .	1 2	2 4	5 2	
28	Acute and chronic nephritis	M. 29 F. 23	. .	. .	. .	1 .	. .	. .	. .	. .	3 6	11 9	6 5	21 19	. .	. .	. .	. .	. .	. .	. .	. .	4 3	5 8	4 8	
29	Puerperal Sepsis	F. 5	. .	. .	. .	. .	. .	. 4	1 .	. .	. .	. .	. .	5 .	. .	. .	. .	. .	. 1	3 .	. .	. .	. .	. .	. .	
30	Other puerperal causes.	F. 5	. .	. .	. .	. .	. .	. 3	2 .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	
31	Congenital debility, premature birth, malformations, etc.	M. 29 F. 25	29 24	. 1	. .	. .	. .	. .	. .	. .	. .	. .	. .	33 54	. 52	. 1	. .	. .	. .	. .	. .	. .	. .	. .	. .	
32	Senility	M. 43 F. 42	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	5 37	27 53	. .	. .	. .	. .	. .	. .	. .	. .	. .	. .	6 21	
33	Suicide	M. 18 F. 4	. .	. .	. .	. .	. .	. .	1 .	7 1	3 2	4 .	2 .	10 6	. .	. .	. .	. .	. .	. .	. .	. .	3 4	2 .	. .	
34	Other violence	M. 28 F. 15	. .	. .	. 3	. .	. 1	3 1	5 2	6 1	2 .	4 .	1 4	40 13	1 1	. .	. .	. 1	. .	. .	. .	3 1	4 .	6 1	5 4	
35	Other defined diseases	M. 58 F. 52	4 3	. 1	. .	. .	3 1	3 1	6 2	3 5	9 8	10 9	11 8	86 66	4 4	1 .	. .	. .	. .	5 4	3 2	8 9	11 13	6 23	20 15	
36	Causes ill-defined, or unknown	M. 5 F. 5	. .	. 1	. .	. .	. .	. .	. .	. .	. 1	3 1	1 2	12 8	1 .	1 .	. .	. .	. .	. .	. .	4 .	1 .	2 3	2 2	

TABLE I.
CAUSES OF DEATH IN THE ADMINISTRATIVE AREAS IN THE COUNTY OF SALOP, 1932- URBAN DISTRICTS.

Causes of Death.		Shrewsbury M.B. 02		Bishop's Castle M.B. 04		Bridgnorth M.B. 05		Church Stretton U.D. 06		Dawley U.D. 07		Fillesmere U.D. 14		Ludlow M.B. 15		Newport U.D. 16		Oakengates U.D. 17		Oswestry M.B. 24		Wellington U.D. 25		Wem U.D. 26		Wenlock M.B. 27		Whitchurch U.D. 34		Market Drayton U.D. 35		Total.	
		M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.
ALL CAUSES		176	208	13	6	37	34	9	12	55	34	15	14	42	41	20	16	96	75	71	67	50	50	17	11	116	103	41	34	33	46	791	751
1 Typhoid and paratyphoid fevers		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..
2 Measles		1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	8
3 Scarlet fever		..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	1	1	..	..	..	..	1	..	..	..	3	4
4 Whooping cough		2	2	..	..	2	..	..	..	..	..	1	..	..	..	..	..	2	..	..	..	1	..	..	..	1	4	..	..	..	..	45	51
5 Diphtheria		..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	6	3	2	4	5	..	..	8	6	1	2	..	4	2	1
6 Influenza		7	13	..	..	5	4	..	1	1	1	..	1	7	5	2	1	7	6	1	..	4	5	..	..	..	..	..	..	..	..	2	1
7 Encephalitis lethargica		..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	2	1
8 Cerebro-spinal fever		1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
9 Tuberculosis of respiratory system		6	9	1	..	4	3	1	1	4	..	1	..	3	2	2	2	3	4	6	..	3	7	..	1	3	7	1	..	3	..	41	36
10 Other tuberculous diseases		1	3	..	..	1	..	..	..	..	..	..	..	1	..	..	..	..	1	1	1	..	..	1	..	3	..	1	1	..	..	8	7
11 Syphilis		..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	3	1	..	..	..	..	..	..	..	..	3	2
12 General paralysis of the insane, tabes dorsalis		1	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..	..	2	..	..	..	..	..	..	..	..	..	3	2	
13 Cancer, malignant disease		35	25	..	1	5	4	3	4	4	4	4	1	5	6	4	..	15	6	8	13	3	4	..	1	10	9	10	6	3	4	109	88
14 Diabetes		3	6	..	..	1	..	..	..	..	1	..	..	1	1	..	..	10	1	1	1	1	..	..	..	1	1	..	1	..	1	8	13
15 Cerebral hemorrhage &c.		9	11	..	..	3	3	..	1	5	5	..	..	1	3	..	2	10	9	6	5	3	4	1	..	9	8	3	5	2	4	52	60
16 Heart disease		45	43	6	3	3	1	1	3	11	10	2	6	4	5	3	1	18	8	21	19	6	7	7	4	29	29	6	3	10	9	172	151
17 Aneurysm		1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	5	2	2	1	..	1	41	37
18 Other circulatory diseases		6	6	2	1	4	3	1	..	6	5	..	2	2	2	1	4	8	7	1	2	2	1	1	..	4	4	..	2	3	1	31	37
19 Bronchitis		8	12	..	..	1	1	1	..	4	3	1	..	2	5	1	2	..	1	3	2	5	..	1	..	1	5	3	..	3	3	15	38
20 Pneumonia (all forms)		2	17	..	..	1	3	..	..	1	..	..	..	1	..	..	..	1	3	2	5	..	1	..	1	1	5	3	..	..	3	4	
21 Other respiratory diseases		..	2	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	1	..	..	2	..	..	..	1	..	..	1	..	5	2	
22 Peptic ulcer		2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	1	..	..	..	..	..	..	..	..	..	..	1	2	
23 Diarrhoea, &c. (under 2 years)		..	1	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	..	..	..	1	1	..	..	3	5	
24 Appendicitis		1	4	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	..	..	2	1	
25 Cirrhosis of liver		..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	..	1	3	
26 Other diseases of liver, etc.		..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	2	5	1	..	..	3	1	1	..	3	1	3	..	3	23	21	
27 Other digestive diseases		1	8	..	..	1	3	..	..	1	1	..	..	3	1	2	2	4	1	5	4	..	2	1	2	2	..	1	2	3	7	29	23
28 Acute and chronic nephritis		6	3	1	..	2	1	..	..	2	..	1	..	1	1	..	..	4	1	5	4	..	2	1	2	2	..	1	2	3	7	29	23
29 Puerperal sepsis		..	1	..	..	..	1	..	..	..	..	..	..	..	..	..	..	2	..	..	..	1	..	..	..	..	2	..	1	..	..	5	5
30 Other puerperal causes		..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	2	..	..	..	..	..	5
31 Congenital debility, premature birth, malformations etc.		6	2	..	..	..	1	..	..	5	1	2	1	1	2																		

TABLE I.
CAUSES OF DEATH IN THE ADMINISTRATIVE AREAS IN THE COUNTY OF SALOP, 1932—RURAL DISTRICTS.

Causes of Death.	Atcham R.D. 08		Bridgnorth R.D. 09		Burford R.D. 18		Chirbury R.D. 19		Church Stretton R.D. 28		CleoburyMor- timer R.D. 29		Clun R.D. 38		Drayton R.D. 39		Ellesmere R.D. 48		Ludlow R.D. 49		Newport R.D. 58		Oswestry R.D. 59		Shifnal R.D. 68		Teme R.D. 69		Wellington R.D. 78		Wem R.D. 79		Whitchurch R.D. 88		Totals.		
	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.	M.	F.			
ALL CAUSES	133	151	42	57	13	8	18	22	27	31	39	42	44	49	43	66	50	42	54	64	31	39	101	98	57	43	10	8	83	77	50	58	11	17	806	872	
1 Typhoid and paratyphoid fevers	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	1	..		
2 Measles	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	3	..	
3 Scarlet fever	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	7	4	
4 Whooping cough	..	..	2	1	..	..	1	..	1	1	..	..	..	..	..	..	1	..	..	..	..	1	1	..	..	..	..	..	2	..	..	..	..	..	1	1	
5 Diphtheria	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	1	..	
6 Influenza	7	6	3	5	..	1	1	5	2	2	..	..	1	2	4	5	2	2	2	9	2	2	3	1	1	4	2	..	4	11	4	3	..	1	38	59	
7 Encephalitis lethargica	..	1	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	1	..	..	1	3		
8 Cerebro-spinal fever	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	
9 Tuberculosis of respiratory system	1	5	..	1	..	..	..	1	..	..	1	3	..	1	1	5	1	..	1	1	1	..	4	5	3	1	..	..	2	4	2	3	1	1	18	31	
10 Other tuberculous diseases	1	1	..	..	1	..	..	1	1	..	..	1	..	..	..	2	3	1	..	..	..	1	3	2	..	..	..	..	1	..	..	..	..	..	..	10	9
11 Syphilis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..
12 General paralysis of the insane, tabes dorsalis	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	2	2	
13 Cancer, malignant disease	20	20	4	5	..	1	3	..	3	3	4	5	3	7	5	6	6	5	4	6	2	5	13	14	8	6	1	1	9	4	5	11	2	1	92	104	
14 Diabetes	2	1	..	1	1	1	..	..	..	..	2	1	..	..	..	1	..	2	3	2	..	..	..	2	..	..	..	..	..	..	..	..	..	..	..	7	14
15 Cerebral hæmorrhage, &c.	5	13	..	1	..	..	2	3	..	2	2	1	5	6	1	6	2	1	3	5	1	3	9	11	3	2	1	1	10	5	3	..	3	47	63		
16 Heart disease	23	33	13	16	4	2	3	3	3	4	10	12	10	11	8	17	15	7	9	9	3	7	20	19	22	14	2	..	9	14	15	20	1	3	170	191	
17 Aneurysm	1	..	..	..	..	..	1	..	3	..	..	..	..	..	1	1	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	4	1	
18 Other circulatory diseases	13	7	..	4	2	1	1	1	3	2	2	1	4	3	3	1	5	2	5	3	4	3	4	6	1	2	..	..	10	3	2	1	2	1	2	59	40
19 Bronchitis	3	8	3	2	..	1	..	..	2	3	3	3	2	1	2	2	1	1	3	4	1	2	2	3	1	2	1	1	3	5	3	2	1	2	31	42	
20 Pneumonia (all forms)	12	11	..	2	2	..	..	1	3	..	..	3	4	2	5	4	2	1	2	3	1	1	2	5	..	..	2	5	3	1	2	1	2	40	42		
21 Other respiratory diseases	1	1	..	..	..	..	..	1	1	1	1	..	..	..	1	..	..	1	..	..	..	1	..	..	1	..	..	..	..	..	1	1	..	..	6	5	
22 Peptic ulcer	1	..	2	..	..	..	..	..	1	1	..	..	1	..	..	1	..	..	..	..	..	..	1	..	..	1	..	..	1	..	1	..	..	..	8	1	
23 Diarrhoea, &c. (under 2 years)	1	1	..	..	..	..	..	..	1	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	1	..	..	..	..	..	2	3		
24 Appendicitis	2	..	..	1	..	..	..	..	1	..	..	..	..	..	..	..	..	1	..	..	..	..	3	..	..	..	..	..	..	..	..	..	..	..	2	..	
25 Cirrhosis of liver	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	..	..	..	..	..	..	2	..	
26 Other diseases of liver, etc.	..	..	..	1	..	..	..	..	..	..	1	..	..	1	..	..	..	..	1	..	..	..	1	..	..	..	..	..	1	1	..	1	..	2	6		
27 Other digestive diseases	4	6	3	1	..	..	1	..	..	2	..	..	..	..	1	5	..	1	3	1	..	..	5	2	1	..	..	..	4	2	..	2	..	22	22		
28 Acute and chronic nephritis	5	3	1	2	..	..	1	..	..	..	1	..	..	..	1	1	1	1	2	..	..	4	6	..	1	..	..	3	2	1	1	1	..	21	19		
29 Puerperal sepsis	..	2	..	..	..	..	..	..	..	..	..	..	..	..	..	1	..	..	..	..	..	..	1	..	1	..	..	..	..	..	..	..	..	..	..	5	
30 Other puerperal causes	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
31 Congenital debility, premature birth, malformations, etc.	6	8	..	2	..	..	1	..	1	5	3	2	2	5	3	4	4	6	1	4	..	1	3	4	3	3	1	1	3	6	..	3	2	..	33	54	
32 Senility	7	7	1	..	..	..	..	..	1	..	3	3	1	6	..	1	2	4	2	10	3	7	1	1	1	2	2	..	7	4	3	..	1	27	53		
33 Suicide	..	2	1	..	..	..	..	..	..	..	3	..	..	1	1	..	..	1	..	..	1	..	2	1	..	..	1	2	..	..	..	..	..	10	6		
34 Other violence	5	3	2	..	2	..	..	1	1	..	1	..	2	1	1	1	3	2	2	..	4	..	6	1	6	..	..	1	3	2	..	2	1	40	13		
35 Other defined diseases	12	11	5	10	..	1	2	1	1	3	5	5	5	2	2	2	2	2	9	3	8	5	16	8	5	3	..	1	9	5	5	2	..	2	86	66	
36 Causes ill-defined or unknown	..	1	1	2	..	..	1	..	2	..	1	1	2	..	1	..	1	..	1	1	..	1	..	1	2	..	..	..	1	..	..	..	..	..	12	8	
Special Causes (included in No. 35 above) :																																					
Small-pox	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Poliomyelitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Polioencephalitis	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	..	
Deaths of infants under 1 year :																																					
Total	9	11	2	4	1	..	2	..	4	6	3	4	3	5	6	8	4	7	1	5	..	4	6	4	4	4	1	2	8	10	1	4	2	1	57	79	
Legitimate	8	10	2	4	1	..	2	..	4	5	3	4	2	5	6	7	4	7	1	4	..	4	5	4	4	4	1	2	7	10	1	3	2	1	53	74	
Illegitimate	1	1	..	..	..	..	..	..	..	1	..	..	1	..	..	1	..	..	..	1	..	1	..	..	..	..	..	..	1	..	..	1	..	..	4	5	
LIVE BIRTHS :																																					
Total	178	158	69	61	8	5	21	24	36	30	46	61	47	47	57	59	77	69	70	58	40	39	102	131	60	78	11	15	94	93	63	62	18	17	997	1007	
Legitimate	167	151	68	60	8	5	20	22	36	28	44	59	40	40	54	56	70	62	65	55	39	38	94	124	58	77	11	14	91	86	60	55	18	17	943	949	
Illegitimate	11	7	1	1	..	..	1	2	..	2	2	2	7	7	3	3	7	7	5	3	1	1	8	7	2	1	..	1	3	7	3	7	..	..	54	58	
STILL-BIRTHS :																																					
Total	5	13	4	3	..	..	1	..	..	2	2	1	1	1	1	2	1	1	3	2	2	1	8	3	1	4	..	..	1	6	4	4	1	..	34	45	
Legitimate	4	13	4	2																																	